DOCUMENT RESUME

ED 143 153 EC 101 393

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TITLE	A Study of the Community Adjustment of Deinstitutionalized Mentally Retarded Persons. Volume I. Approaches to Defining and Measuring the Community Adjustment of Mentally Retarded Persons: A Review of the Literature.
INSTITUTION	Abt Associates, Inc. Cambridge, Mass.
SPONS AGENCY	Bureau of Education for the Handicapped (DHEW/OE), Washirgton, D.C.
REPORT NO	AAI-76-100
PUB DATE	Sep 76
CONTRACT	OEC-0-74-9183
NOTE	117p.; Some print marginal and may not reproduce well; For related information, see EC 101 394-398
EDRS PRICE	MF-$0.83 HC-$6.01 Plus Postage.
DESCRIPTORS	*Adjustment (to Environment); Adjustment Problems; Exceptional Child Research; *Mentally Handicapped; Normalization (Handicapped); Personal Adjustment; *Research Reviews (Publications); Social Adjustment; Vocational Adjustment
IDENTIFIERS	*Deinstitutionalization

ABSTRACT

The first of a six-volume series on the community adjustment of deinstitutionalized mentally retarded persons examines 28 research studies on community adjustment and proposes a framework for reviewing criterion measures and predictors of adjustment. Summary descriptions of major characteristics of the studies are provided, and matrices listing criterion measures and predictors of community adjustment are included. Criterion measures are reviewed for adjustment in five areas: vocational (including employment status, job stability and job satisfaction); social (including conformity to law and social mores); marital; economic (including self support and ownership); and residential (ircluding type of living situation and interpersonal relationships in home settings). Predictions of adjustment are seen to include subject variables (abilities and demographic factors), and such institutional experience variables as family involvement and release process. Among conclusions discussed are that research cites adequate community adjustment by a large number of mentally retarded persons, and that the stability of the adjustment appears to increase with time. (CL)

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Contract No. OEC-0-74-9183

APPROACHES TO DEFINING AND MEASURING THE COMMUNITY ADJUSTMENT OF MENTALLY RETARDED PERSONS: A REVIEW OF THE LITERATURE

September, 1976

Principal Author

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Volume I of
A Study of the Community Adjustment
of Deinstitutionalized Mentally Retarded Persons

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EC 101393

Contract Manager	Quality Control Reviewer	Management Reviewer

ACKNOWLEDGEMENTS

In July, 1974, Abt Associates was awarded a contract by the Bureau of Education for the Handicapped of the United States Office of Education to conduct an assessment of the adjustment of deinstitutionalized mentally retarded people to community life (Contract No. OEC-0-74-9183). The present volume is one of a six-volume series produced over the course of the project to describe deinstitutionalization procedures of institutions and community adjustment experiences of mentally retarded persons. We are deeply indebted to many people for their cooperation and assistance in all phases of this project.

First, we wish to give special thanks to our Project Officer in the United States Office of Education's Bureau of Education for the Handicapped, William Johnston, for providing support and guidance to us throughout the course of the contract, and to Max Mueller, Chief, Research Division, BEH.

The Abt Associates research staff who assisted in this project worked long and difficult hours to prepare, analyze, and report the data in these volumes. First, we wish to thank Patricia Cook, who served as the Project Director of this study from July, 1974 to May, 1975. Special thanks go to Diane Stoner, Supervisor of Field Operations, and to Jaime Grubin and coders from the Survey Design Group for pre-coding our instruments and subsequently coding the data; to Joe Clark, Sandy Friedman, and Paul Robertson for their invaluable help in preparing the complex data base and carrying out the computer work; to Jim Hoell and Karen Schneiderman for helping organize the data into meaningful tables and charts; and to Kathy Moss and Paul Robertson for assistance in writing up our findings.

We are especially grateful to Professor Norman R. Kurtz of the Florence Heller School for Advanced Studies in Social Welfare, who served as an on-going consultant on this project. He was helpful in various phases of the project, particularly in reviewing our instruments, developing and carrying out our analysis plan, and reviewing our working documents.

Corporate staff at Abt Associates who deserve thanks for their support and guidance are Andy Anderson, our contract management reviewer, and Peter Miller, Education Area Manager and Vice-President.

The study involved two major field efforts: 1) visits and interviews by field staff at 10 selected institutions serving mentally retarded persons; and 2) visits and interviews by field staff with the 440 deinstitutionalized clients and their families. The field staff worked enthusiastically and effectively in collecting the data, sometimes under difficult field conditions and time constraints. We wish to thank the field staff who conducted the site visits to the ten institutions--Marjorie Scarlett, Laurie Stewart, and Bonnie Wilpon--as well as the staff who conducted interviews with deinstitutionalized clients and their families--Sharon Alperin, Joel Braun, Amy Cicala, Michael Clifford, Barbara Epstein, Eleanor Franklin, Lois Gerardi, Ellen Hartford, Lauri Lewis, Vicki Peters, John Schlichte, Suzanne Simenson, and Jan Valley.

Special thanks go to the Mohawks and Squaws, a consultant group of mentally retarded persons, and to Adrienne Glenn in particular, who helped sensitize and train our field staff to the process of interviewing mentally retarded persons. We are also grateful to the institutions and persons who assisted us in pre-testing instruments and questionnaires--particularly the staff at Monson State School, Monson, Massachusetts, and the staff at Seaside Regional Center, Waterford, Connecticut, and the host of families, group home staff, and deinstitutionalized clients.

We wish to thank the 154 institutions which responded to our initial mail survey and particularly the staff at the 10 institutions participating in this study. Participation required a great deal of time and effort on their part, with little promise of returns which could directly benefit them. Their motivation for participating was based on a desire to assist in a research project which they felt was greatly needed. We hope that our study reports meet their expectations and will be helpful in preparing training programs and placing clients in community settings. The institutions participating were:

Arlington Developmental Center
Arlington, Tennessee

Beatrice State Home
Beatrice, Nebraska

Belchertown State School
Belchertown, Massachusetts

Brainerd State Hospital
Brainerd, Minnesota

Brandon Training School
Brandon, Vermont

Northern Wisconsin Colony and Training School
Chippewa Falls, Wisconsin

Polk State School and Hospital
Polk, Pennsylvania

Suffolk Developmental Center
Suffolk, New York

Sunland at Tallahassee
Tallahassee, Florida

Utah State Training School
American Fork, Utah

Above all, our praise and thanks go to the 440 deinstitutionalized clients and their families who participated in this study. They spent long hours with our interviewers providing difficult information on community adjustment experiences. As with the participating institutions, there were no direct benefits to them for participating in the study. Without their efforts and insights a report such as this could not have been written. We can only hope that the findings and recommendations of this study might facilitate the community adjustment of persons who are released from institutions in the future.

Elinor Gollay, Project Director
Ruth Freedman, Deputy Project Director
Marty Wyngaarden, Research Analyst

PREFACE: PROJECT OVERVIEW

Objectives

This report is based on a study conducted by Abt Associates Inc. for the Bureau of Education for the Handicapped of the United States Office of Education (Contract No. OEC-0-74-9183). The overall purpose is to assess the adjustment of deinstitutionalized mentally retarded people to community life. The objectives are six-fold:

1. to review the criterion measures and predictors of community adjustment used in studies of mentally retarded persons and to analyze the research issues related to these projects. The findings of this review are contained in Volume I: Approaches to Defining and Measuring the Community Adjustment of Mentally Retarded Persons--A Review of the Literature.

2. to describe the current patterns of deinstitutionalization based on a mail survey of 250 institutions across the nation involved in deinstitutionalizing mentally retarded persons. Volume II: Profile of National Deinstitutionalization Patterns 1972-1974 summarizes the findings of this survey.

3. to describe the deinstitutionalization procedures and policies of 10 selected residential institutions serving mentally retarded persons based on field visits made to these facilities by project staff. The findings of these visits are published in Volume III: Case Studies of the Deinstitutionalization Procedures of Ten Selected Institutions Serving Mentally Retarded People.

4. to describe the community experiences of mentally retarded persons, based on interviews with 440 clients (released from the selected institutions described in objective 3) and their "families" (e.g., parents, foster parents, guardians, or whoever was providing care and supervision for the client in the community setting). This descriptive data is presented in Volume IV: Descriptive Data on the Community Experiences of Mentally Retarded Persons.

5. to determine what institutional, client, and community factors contribute to successful community adjustment based on the interviews described in objective 4 and on institutional data collected during the field visits to the ten institutions. Volume V: An Analysis of Factors Contributing to Community Adjustment presents the findings of this analysis.

6. to summarize the findings of the previous 5 volumes and to provide recommendations to USOE for further research related to deinstitutionalization based on the analysis of the data collected according to the objectives described above. These findings are published in Volume VI: Executive Summary--Overall Findings and Recommendations.

Overall Research Design

The overall research design employed in this study is depicted graphically in Table A. As can be seen from the table, there were four major phases to the study design: 1) conceptualization; 2) instrument design; 3) data collection; and 4) analysis and report writing. The findings reported in Volumes 1-6 were based upon the procedures undertaken in each of the four phases. In order to present an overall picture of the research design, the phases will be briefly described in this section. More detailed information on these phases as they relate to each of the specific volumes is presented in the "Methodology" section of each individual volume.

Conceptualization

The first major phase involved developing a conceptual model of deinstitutionalization and the community adjustment process. First, a review of the literature was conducted. Based on the findings of this review (reported in Volume I), a model was developed setting forth the study's assumptions about the process of deinstitutionalization and community adjustment. The model included nine sets of variables which encompassed the major characteristics of deinstitutionalization and the community adjustment experiences. The nine sets of variables are listed at the bottom of Table A (see "a" in Table A). More specific information on the content of these variables and their role as independent and dependent measures is contained in the "Methodology" section of each individual volume.

Instrument Design

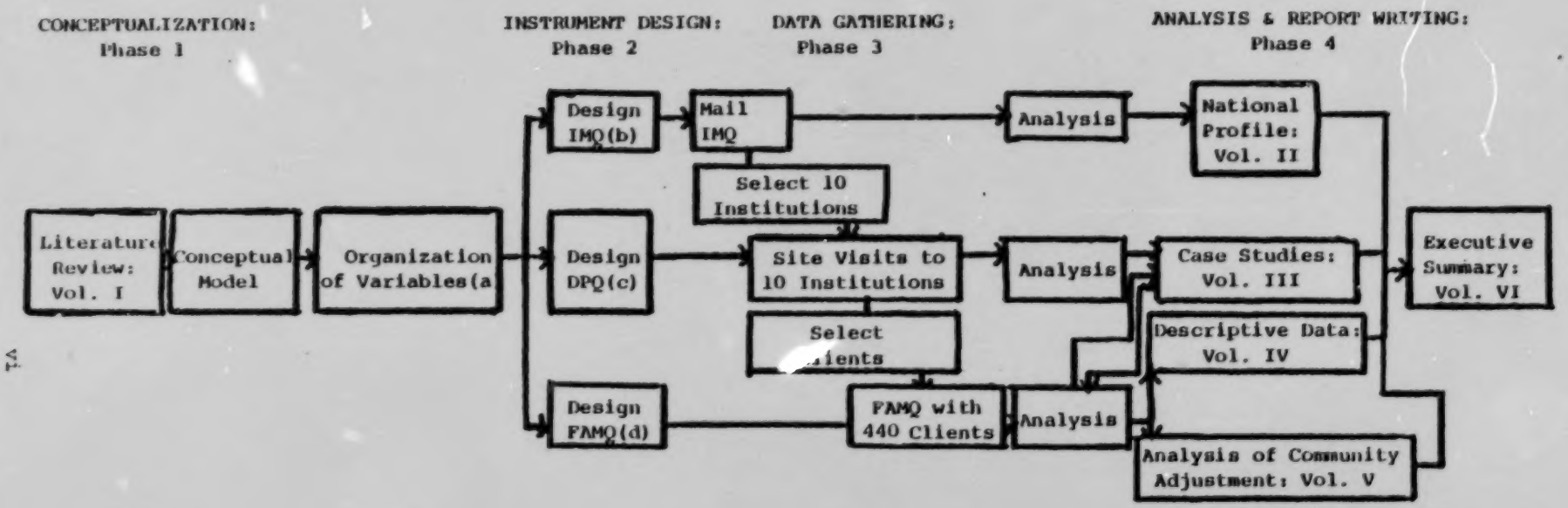
Three groups of instruments were designed to collect data on the nine variable sets:

1. Institutional Mail Questionnaire (IMQ) -- a mail questionnaire designed to obtain information on the deinstitutionalization procedures and release patterns of 250 institutions across the nation serving mentally retarded clients.

2. Deinstitutionalization Procedures Questionnaire (DPQ) -- a questionnaire designed to survey ten institutions selected for in-depth case study descriptions regarding deinstitutionalization and pre-release policies, procedures and programs.

TABLE A.

OVERALL RESEARCH DESIGN.



(a) Sets of Variables

- Client Characteristics
- Institutional Characteristics
- Community Characteristics
- Residential Characteristics
- Day Activity Experiences
- Residential Experiences
- Services and Training
- Social & Civic Activities
- Problems & Interpersonal Relationships

(b) IMQ Data Areas

- Residential Population
- Release Patterns
- Pre-Release/Post-Release Services
- Institutional Clearance Procedures for Study

(c) DPQ Data Areas

- State Policies/ Legislation
- Client Assessment Procedures
- Pre-Release Programs
- Release Procedures
- Follow-Up Procedures and Support

(d) FAMQ Data Areas

- Interview with Client
- Interview with Family
- Adaptive Behavior Scale
- Client Data Recording Form
- Final Comments Sheet

3. "Family" Questionnaires (FAMQ) -- a series of instruments designed to obtain data on the community adjustment experiences of deinstitutionalized clients living in the community. The types of instruments included in the Family Questionnaire are listed at the bottom of Table A (see d in Table A). The instruments included an interview questionnaire to be administered to the deinstitutionalized client; a questionnaire administered to the client's family; an Adaptive Behavior Checklist (ABS) measuring the functional level of the client; a Client Data Recording Form (CDRF) obtaining demographic data from institutional records about the client (e.g., age, number of years institutionalized, date of discharge, etc.); and a Final Comments Sheet (FCS) to record the interviewer's impressions.

Data Gathering

The three sets of instruments described above were administered to the appropriate respondents in a sequential fashion. First, the IMQ was mailed to 250 institutions serving persons across the nation. Ten institutions were selected for in-depth case study descriptions (see "Methodology" sections of volumes for description of selection procedures used for IMQ respondents). The 10 institutions were then visited by project staff to collect data using the DPQ. Based on the data and on further contact with institutional staff, 440 deinstitutionalized clients released from their institutions were selected for study. (See "Methodology" section of volumes for descriptions of these selection procedures.) Finally, the FAMQ series of instruments was used to gather data on study group clients.

Analysis and Report Writing

The data described above were analyzed and reported in several ways. The findings based on IMQ data are reported in Volume II: Profile of National Deinstitutionalization Patterns, 1972-1974. The data obtained from the DPQ was analyzed in two ways: 1) case study descriptions of the individual institutions and a cross-case study summary which is reported in Volume III: Case Studies of the Deinstitutionalization Procedures of Ten Selected Institutions Serving Mentally Retarded People; and 2) portions of the DPQ data served as independent variables for the analysis reported in Volume V: An Analysis of Factors Contributing to Community Adjustment. Similarly, the FAMQ data were analyzed in several ways: 1) data on the community experience of clients in the study group are reported descriptively in Volume IV: Descriptive Data on the Community Experiences of Mentally

Retarded Persons and also in the final chapter of each institution's case study description in Volume III; 2) FAMQ data are organized into independent and dependent measures of community adjustment and reported in Volume V: An Analysis of Factors Contributing to Community Adjustment. All of the data collected and reported in Volumes 1-5 were then analyzed in terms of their implications for overall study findings and recommendations. These overall findings and recommendations are reported in Volume VI: Executive Summary.

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Statement of Purpose 1
1.2 Organization of the Literature Review. 2
1.3 Statement of the Problem: Defining the Concept of Community Adjustment. 3

1.3.1 Approaches to Defining "Adjustment" 3
1.3.2 Approaches to Defining "Community Adjustment" . . . 4

2.0 OVERVIEW OF STUDIES MEASURING THE COMMUNITY ADJUSTMENT OF MENTALLY RETARDED PERSONS. 7

2.1 Types of Studies Conducted 7

2.1.1 Descriptive Studies 8
2.1.2 Predictive Studies. 9
2.1.3 Reviews of Studies. 10

2.2 Selection of Studies for this Review 10
2.3 Summary Description of Studies Selected for this Review. . 13

3.0 INTRODUCTION TO FRAMEWORK FOR REVIEWING CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT. 20

3.1 Definition of Terms. 20
3.2 Approach to Review 21
3.3 Summary Matrices of Criterion Measures and Predictors Used in Studies. 22

4.0 CRITERION MEASURES OF COMMUNITY ADJUSTMENT. 37

4.1 Vocational Adjustment. 37

4.1.1 Employment Status 37
4.1.2 Type/Level of Job 38
4.1.3 Job Stability 40
4.1.4 Wages 42
4.1.5 Procedures in Finding a Job 42
4.1.6 Work Performance. 43
4.1.7 Job Satisfaction. 44

4.2 Social Adjustment. 45

4.2.1 Conformity to Law and Social Mores. 46
4.2.2 Participation in Leisure-Time Activities. 47
4.2.3 Civic Participation 48
4.2.4 Friendships and Interpersonal Relationships 49
4.2.5 Satisfaction with Social Life and Relationships . . 51

4.3 Marital Adjustment 51
4.4 Economic Adjustment. 53

4.4.1 Self-Support. 53
4.4.2 Ownership 53

4.5 Residential Adjustment 54

4.5.1 Type of Living Situation. 55
4.5.2 Residential Stability 55
4.5.3 Interpersonal Relationships in Home Settings. . . 56
4.5.4 Satisfaction with Living Situation. 57

4.6 Other Criterion Measures 57

4.6.1 Institutionalization. 58
4.6.2 Dependence on Supervision 59

4.7 Summary. 61

5.0 PREDICTIONS OF COMMUNITY ADJUSTMENT 64

5.1 Subject Variables. 64

5.1.1 Demographic Characteristics 64
5.1.2 Abilities and Disabilities. 65

5.2 Pre-Admission Variables. 66
5.3 Institutional Experience Variables 67

5.3.1 Admission Information 67
5.3.2 Behavior Record 68
5.3.3 Training Records. 69
5.3.4 Family Contact/Involvement. 69
5.3.5 Release Process 69

5.4 Community Variables. 69
5.5 Summary of Predictors of Community Adjustment. 71

6.0 SUMMARY AND CONCLUSIONS 73

6.1 Integration of Findings of Studies 73
6.2 Future Outlook on Community Adjustment of Mentally Retarded Persons 77
6.3 Guidelines for Developing a Model of Community Adjustment 78
6.4 Implications of Findings for the Design of the Abt Study. 81

APPROACHES TO DEFINING AND MEASURING THE COMMUNITY ADJUSTMENT OF MENTALLY RETARDED PERSONS: A REVIEW OF THE LITERATURE

1.0 INTRODUCTION

1.1 Statement of Purpose

The purpose of this review is to examine studies which have attempted to measure the community adjustment of mentally retarded persons, focusing on the definitional and measurement issues related to these projects. After a brief historical overview of various types of studies assessing community adjustment, the criterion measures and predictors of community adjustment used in 28 selected studies will be discussed. The major findings of the selected studies will be reviewed for their implications for the design and analysis of this study conducted by Abt Associates as well as for future research in this field.

There are two major reasons for conducting this literature review:

1) Future Research Development: A large number of studies have attempted to measure the community adjustment of mentally retarded persons. In order to build on their past efforts and to determine new directions in this field, the findings of these studies must be integrated. Specifically, it is hoped that a review of the definitional and measurement issues enabled the staff to develop a responsive study design and sound analysis for this project, and that future researchers will be similarly assisted.

2) Future Service Development: It is hoped that an integration of the findings of these studies will be of use to persons developing programs and services for mentally retarded persons. Specifically, findings regarding factors which appear to contribute to successful community adjustment should be of interest to policymakers in developing: 1) programs at institutions to prepare clients for community living; and, 2) support services in the community to facilitate the adjustment of mentally retarded persons.

1.2 Organization of the Literature Review

A variety of definitions of community adjustment are reviewed in an effort to determine an operational definition of the concept for the Abt Associates project. The remainder of this report will be organized into the following major sections:

2.0 Overview of Studies Measuring the Community Adjustment of Mentally Retarded Persons

This section will provide a general overview of the number and types of studies measuring the community adjustment of mentally retarded persons which have been conducted. Individual descriptions of those studies selected for inclusion in this review will then be presented in a Summary Table.

3.0 Introduction to Analytical Framework

In this section, the framework for reviewing the various criterion measures and predictors of community adjustment will be introduced, followed by summary matrices of the criterion measures and predictors used in the selected studies.

4.0 Criterion Measures of Community Adjustment

In this section, major categories measures--residential, vocational, economic, social, marital, and overall community adjustment--will be reviewed including a discussion of the overall definition and measurement problems.

5.0 Predictors of Community Adjustment

The various predictors of community adjustment used in selected studies will be described--subject variables, preadmission, institution and community variables--followed by a review of the overall definition and measurement problems.

6.0 Summary and Conclusions

The major findings and methodological issues of these studies will be summarized and then discussed in terms of their implications for the design and analysis of the Abt Associates study as well as for future research in this field.

1.3 Statement of the Problem: Defining the Concept of Community Adjustment

One of the biggest problems encountered in studies of community adjustment of mentally retarded persons has been defining and operationalizing the concept of "community adjustment." Both the terms "community" and "adjustment" are used loosely in everyday language and connote various meanings and values, depending upon the user of the term and the context. In this review, studies will be examined which have used a variety of definitions. A single definition of the term will not be imposed in this review. In the final section of this report (6.3), the implications of these various definitions will be reviewed in order to establish guidelines for defining community adjustment as it will be used in the Abt Associates study.

1.3.1 Approaches to Defining "Adjustment"

In general, studies have viewed adjustment as adaptation by an individual to the demands of his/her environment. For example, Kennedy (1962) defined adjustment as meeting society's "norm of expectation." She summarizes:

> In our society, the adult is expected to make an acceptable adjustment in his personal and social life. It is expected that he will marry, establish a home, have children, support his family, be law-abiding, and cause little, if any, serious trouble for himself, his family, and his community. This is the 'norm of expectation' and this is what most people do. What constitutes personal, social, and economic adjustment is as simple as that. (p. 72)

Traditionally, adjustment has been conceptualized in terms of the various environments in which an individual functions. For example, vocational adjustment connotes the adaptation of an individual to the requirements and expectations of his/her work environment (Bobroff, 1956a; Collman and Newlyn, 1957; Mudd, et al., 1968), marital adjustment to the demands of marriage (Fairbank, 1933; Mattinson, 1970). In addition to the notion of adjusting to specific environments such as the world of work or school, adjustment has been used as well in a broader context to imply adaptation to some of the general demands of living in a society. Hence, social adjustment implies adapting to the overall social demands imposed in one's living environment and psychological adjustment to the psychological requirements

necessary to function (Saenger, 1957; Wolfson, 1956). In short, the notion of adjustment is dependent upon the type and scope of environment(s) being considered.

1.3.2 Approaches to Defining "Community Adjustment"

Community, in its most limited sense, refers to the geographic entity -- e.g., town, city, or other locality -- in which a person resides. But studies measuring the community adjustment of mentally retarded persons have tended not to use the term community in this context. Community adjustment has generally referred to the overall adaptation necessary to function in one's total set of environments -- including, but not necessarily limited to, the environments of work, school, home, and neighborhood. The concept of community adjustment, in a sense, transcends the notion of adjustment to any specific environment and, rather, focuses on those overall behaviors necessary to function in a community composed of multiple environments with multiple demands (Bell, 1974; Lambert, 1974; Rosen, et al., 1970).

Some studies have attempted to combine the measures of adjustment to specific environments hoping to come up with a composite definition of community adjustment -- for example, adjustment to work + adjustment to home + adjustment to neighborhood = community adjustment (Baller, Charles and Miller, 1967; Kennedy, 1962; Mudd, Melemed and Wechsler, 1968). Other studies have maintained that community adjustment must also include measures which run across various environments -- e.g., level of performance, level of supervision, social interaction/integration, satisfaction with these environments (Bell, 1974; Bowman and Hoffman, 1969; Saenger, 1957; Wolfson, 1956).

Many studies, however, have attempted to solve the definitional problem by using a single dichotomous criterion to measure community adjustment -- most often, the criterion of remaining in the community (Jackson and Butler, 1963; Krishef, 1959; Madison, 1964; Shafter, 1957; Windle, 1961). That is, community adjustment is defined as remaining in the community; lack of community adjustment or failure to adjust is defined as becoming re-institutionalized.

The problems with the various definitions of community adjustment are multiple and will be discussed in detail in Section 4.0. The basic shortcomings can be summarized here as follows:

1) Most studies have used dichotomous measures of community adjustment which imply that either a person is adjusted or not adjusted -- an all or nothing situation. Such studies do not take into account that there may be various levels of adjustment that a person might attain.

2) Most studies fail to view community adjustment as a process -- instead, they treat the concept as a static event which can be measured at one point in time according to a single criterion.

3) In those studies which do view community adjustment as a process, it is treated as a definite one-way process. That is, community adjustment is defined as the individual adapting to the demands of the community. Very rarely is the community's adaptation to the demands of the individual taken into account in the definition of community adjustment.

4) Another underlying problem which runs across the various criteria is the assumption of higher standards of community adjustment for mentally retarded persons than would be expected of the so-called normal population. For example, many of the criteria used in measuring the community adjustment of mentally retarded persons impose high standards of independence, competence, socialization. Could it be that we expect mentally retarded persons to be more independent, competent or socialized than we expect of ourselves? This issue was raised in a study by Goroff (1967) in which critical incidents leading to the reinstitutionalization of mentally retarded persons were ones that would not have been considered consequential for non-retarded persons -- e.g., tardiness on the job, poor attitude toward supervisor, etc. Goroff raised an interesting question:

Could it be that people generally expect more socially from the retarded individual than from others? Does the fact that the individual is mentally retarded create in people a predisposition which magnifies the significance of the retardate's behavior? Does inept social behavior by the mentally retarded individual engender a more intense negative reaction than may be true for the general populaiton? Is the mentally retarded individual's challence to authority less tolerated than that posed by the rest of the population? (p. 18)

2.0 OVERVIEW OF STUDIES MEASURING THE COMMUNITY ADJUSTMENT OF MENTALLY RETARDED PERSONS

Studies measuring the community adjustment of mentally retarded persons span many decades, conducted in periods of varying social and economic conditions. The first significant study of the community adjustment of mentally retarded persons, conducted by Walter Fernald (1919), was a follow-up of inmates who escaped or were reluctantly discharged from the Waverly State School in Massachusetts during a period of 25 years (1890-1915). Fernald tracked down 646 of the 1,537 persons who had left the institution and interviewed friends, relatives, and community representatives about them. The study became a model for a long series of similar institutional follow-up studies in subsequent decades.

It is difficult to estimate the number of studies measuring community adjustment which have been conducted. Since Fernald's classic study there have been at least 175 published reports concerning the post-institutional adjustment of the mentally retarded (McCarver and Craig, 1974). In addition to these, however, there have been a large number of studies measuring the community adjustment of persons <u>not</u> previously institutionalized, mostly persons who were identified as mentally retarded through attendance in special education classes or clinics in the community (Mudd, Melemed and Wechsler, 1968; Saenger, 1957; Skaarbrevik, 1971). These two groups, previously institutionalized and non-institutionalized mentally retarded persons, have served as major bases for samples in the community adjustment studies cited in the literature.

2.1 Types of Studies Conducted

Studies measuring the community adjustment of mentally retarded persons can be divided into two major categories -- descriptive studies and predictive studies. The purpose of <u>descriptive studies</u> is to investigate and describe the community adjustment experiences of selected groups of mentally retarded persons, usually reporting the frequency of adjustment success and failure, and sometimes describing informally the possible differentiating characteristics of the success/failure groups. <u>Predictive studies</u> attempt to identify specific variables which predict the success or failure of the community adjustment of mentally retarded persons. A brief discussion of these basic types of studies follows.

2.1.1 Descriptive Studies

There are three basic types of descriptive studies: 1) simple follow-up studies; 2) comparative studies; and, 3) longitudinal studies. Simple follow-up studies describe how mentally retarded persons are faring in the community at one point in time. These studies often gather very interesting descriptive data on a variety of community experiences of mentally retarded persons -- work, living environment, social life, legal problems, etc. However, no attempt is made to compare the characteristics of successful to non-successful adjustors, nor is any attempt made to follow up the sample at a later point in time. Simple follow-up studies often present case histories of individual experiences in adjusting to community living and/or report the frequencies of various experiences and characteristics of the sample groups. The overwhelming majority of studies which have been conducted throughout the years has been this type, particularly prior to the 1940s when more sophisticated data gathering and analytical methods were not generally available.

Comparative studies attempt to compare the community adjustment of a sample of mentally retarded persons to another group of persons -- either a control group of non-retarded persons or a comparison group of retarded persons in a different setting or with different characteristics than the original sample -- for example, high vs. low IQ groups (Baller, Charles and Miller, 1967; Fairbank, 1933; Kennedy, 1962), special class vs. regular class training (Bobroff, 1967a and 1967b; Collmann and Newlyn, 1956, 1957a and 1957b). Very few of these studies are cited in the literature, perhaps because of the difficulty in determining and selecting relevant control groups. They offer a unique perspective on community adjustment because the experiences of mentally retarded persons are examined in relation to the experiences of other persons living in the community. This may help to prevent researchers from imposing standards of success on mentally retarded persons which are not expected of other groups of people.

Even rarer in occurrence than comparative studies have been longitudinal studies which attempt to measure the community adjustment of persons over time. Only three substantial longitudinal follow-up studies are identified in the literature; all measure, at two or more points in time, the

community adjustment of non-institutionalized persons previously identified as mentally retarded during their school years (Baller, Charles and Miller, 1967; Fairbank, 1933; Kennedy, 1962). It is interesting to note that these studies were comparative as well as longitudinal, utilizing control groups of non-retarded persons. These studies have been significant because they are the only ones in the literature able to identify changes and trends in individuals' community adjustment patterns. The findings of these studies have indicated an increased stability in persons' adjustment patterns over time and have helped to dispel the notion that "persons who give evidence of low ability in childhood develop and perform according to a rigid stereotype" (Charles, 1953, p. 67). These studies have also been interesting because they describe the adjustment patterns of individuals in times of economic and social change. For example, Charles' study (1957) in 1953 followed up on Baller's group of mentally regarded persons whose community adjustment had originally been assessed in 1935, during a period of extreme economic depression. Charles' follow-up of these persons 17 years later indicated that their community adjustment improved as economic conditions improved.

2.1.2 Predictive Studies

A reasonable number of predictive studies cited in the literature have attempted to determine variables predictive of successful and non-successful community adjustment. All have been retrospective; i.e., the data were not collected at the time clients were released from institutions or graduated from school programs; instead, data were collected at the time of the follow-up study from available records. These studies attempted to predict successful community adjustment by assessing persons in the sample according to some established criteria of success and then investigating selected independent variables which distinguished between the successful and non-successful cases. Some of these studies attempted to validate isolated variables as predictors of success or failure (Bell, 1974; Skaarbrevik, 1971), while others attempted more sophisticated analyses across multiple predictors and criteria (Jackson and Butler, 1963; Madison, 1964; Rosen, 1970; Stephens, 1967).

2.1.3 Reviews of Studies

In addition to the individual studies, some overall reviews of the studies have been published. The nature and scope of these reviews vary, but they serve as resources in presenting an overall picture of the research to date. The most recent review by McCarver and Craig (1974) discusses studies investigating the postinstitutional placement of the mentally retarded. The authors discuss the many methodological problems of such studies, and review the overall results to date. H.V. Cobb (1972) presents a review of research on predictive assessment of the adult retarded for social and vocational adjustment. He focuses on 11 studies, particularly their design, methodology, and analysis. Another classic literature review was conducted by Charles Windle (1962) on studies relating to the prognosis of mental subnormals in institutional settings. Other reviews which have been published include Conley (1973, Chapter V), Eagle (1967), Goldstein (1964), and Tizard (1958).

Given the number of reviews which have already been published, one might question the advisability of publishing still another. The answer to this question lies in the fact that none of the reviews thus far have systematically integrated and analyzed the criterion and predictor variables used in studies of both formerly institutionalized and non-institutionalized mentally retarded persons. It was felt that an updated in-depth analysis of these variables across both institutionalized and non-institutionalized samples would provide an extremely useful additional perspective in designing and conducting the analysis of the Abt Associates and other similar projects.

2.2 Selection of Studies for This Review

Given the large volume of studies which has been conducted on this subject and the variety of reviews published, it is neither feasible nor desirable to analyze all of the literature published to date. Twenty-eight studies were selected for inclusion in this review. Three major selection criteria were used in this process. The first criterion was potential relevance to the Abt Associates study. That is, studies were selected for review which attempted to measure or predict areas of community adjustment similar to the focus of this study or which had encountered methodological

issues similar to those anticipated by Abt Associates (e.g., selecting and locating a formerly institutionalized sample, obtaining consent of subjects and maintaining confidentiality, developing instruments to interview mentally retarded persons and their families, constructing theoretical models of community adjustment, etc.). Studies which were only marginally related to the proposed Abt Associates study (e.g., studies focusing exclusively on psychological measures of adjustment or studies measuring the adjustment of persons in institutional settings) were examined during the literature search, but are not included in this review.

Secondly, studies were selected to represent a broad cross-section of the various types of studies, as indicated in Table 1. As can be seen, the number of descriptive and predictive studies selected are approximately equal. Since the overwhelming majority of studies conducted have been simple follow-ups, only a sample of this type was included in the review. Simple follow-up studies conducted prior to 1930 were researched but excluded from this review since the variables measured and methodological approaches used tended to be similar to or more limited than those studies after 1930. Although these historical studies will not be reviewed individually in this report, references to certain of them will be made where appropriate. All longitudinal and comparative studies cited in the literature were included in this review because of their small number and unique methodological perspectives. Similarly, all predictive studies attempting to identify variables predicting successful and non-successful community adjustment of mentally retarded persons living in community settings have been included because of their relative sophistication of design and relevance to the proposed focus of the Abt Associates study.

The third criterion used was representation of a broad cross-section of criterion measures and predictors. Some studies were selected which included multiple criterion measures and predictors; others focused on specific aspects of adjustment and/or specific predictors. Most of the studies selected, however, measured the <u>overall</u> community adjustment of mentally retarded persons. Studies focusing only on one type of adjustment--e.g., vocational adjustment or psychological adjustment--generally were not selected for in-depth review although references to them may be made where appropriate.

Table I

STUDIES SELECTED FOR REVIEW BY MAJOR TYPE

Descriptive			Predictive
Simple Follow-Up	Longitudinal	Comparative	
Bijou, Ainsworth and Stockey (1943)	Baller, Charles and Miller (1967)	Baller, Charles, and Miller (1967)	Bell (1974)
Edgerton (1967)	Fairbank (1933)	Bobroff (1956)	Bower and Switzer (1962)
Edmonson (1974)	Kennedy (1962)	Collman & Newlyn (1956 and 1957)	Bowman and Hoffman (1969)
Hegge (1944)		Fairbank (1933)	Jackson and Butler (1963)
Johnson (1946)		Kennedy (1962)	Kraus (1972)
Mattinson (1970)			Krishef (1959)
Mudd, Melemed, and Wechsler (1968)			Lambert (1974b)
Saenger (1957)			Madison (1964)
Skaarbrevik (1971)			Rosen, Kivitz, Clark and Floor (1970)
Windle, Steward, and Brown (1961)			Shafter (1957)
Wolfson (1956)			Skaarbrevik (1971)
			Stephens (1967)

2.3 Summary Description of Studies Selected for this Review

Table II presents a summary description of the major characteristics of each of the studies selected for review. This table is limited to a description of 11 basic characteristics:

1) Type of study (simple follow-up, longitudinal, comparative, predictive);
2) Year of study (the year in which study was conducted or begun);
3) Location of study (geographic area(s) in which subjects were followed up);
4) Length of follow-up period (the number of years elapsing between either the date of the subject's release from the institution or graduation from special class, or former follow-up contact and the date of follow-up contact in the particular study cited);
5) Sample type (either subjects who were formerly institutionalized or subjects not formerly institutionalized);
6) Sample size (number of subjects in study and control group members, where indicated);
7) Sex of sample (males and/or females);
8) Age level (age level or mean age in years of subjects);
9) IQ level (IQ level or mean IQ of subjects)
10) Data collection methods (data gathered from institutional and agency records, mailed questionnaires, interviews with families and professionals, or interviews with clients;) and
11) General remarks (general remarks about overall purpose of study).

The description of these characteristics is intended to provide an overview of the selected studies. Discussion of the more individualized substantive issues (e.g., criterion measures and predictors used in studies, major methodological problems and findings of studies) will be dealt with in the remaining sections of this report. The section following Table II (Section 3.0) will present the framework for reviewing the criterion measures and predictors used in the selected studies.

Table II

MAJOR CHARACTERISTICS OF STUDIES SELECTED FOR REVIEW

Study Authors	Type of Study* S=Simple Follow-Up L=Longitudinal C=Comparative P=Predictive	Year of Study	Location	Length of Follow-Up Period (in Years)	Sample Type I=Formerly Institutionalized Persons N=Not Formerly Institutionalized Persons	Sample Size	Sex of Sample	Age Level (in Years)	IQ Level	Data Collection Methods R=Records M=Mailed Questionnaires I=Interviews with families, professionals, etc. IC=Interviews with Clients	General Remarks
Baller, Charles and Miller (1967)	L and C	1964	Nebraska	27-29	N	453	M and F	Mid 50s	109 "Low" mentally retarded subjects 138 "Middle" or borderline subjects 106 "High" or average intelligence subjects	M or I	Only study of mid-life attainment of mentally retarded persons. One of three longitudinal follow-up studies of original group of subjects first studied in early life in the mid and late '30s.
Bell (1974)	P	Post-1972 and ongoing	Texas	1-5	I	503	M and F	16-34	$\bar{X}$ low IQ group=43 $\bar{X}$ high IQ group=67	R, M, I, IC	An ongoing study of individuals discharged from state school in Texas during 1968-1972
Bijou, Ainsworth and Stockey (1943)	S	1941	Northville, Michigan	4-11	I	101	F	$\bar{X}$=17	$\bar{X}$=67.2	I and IC	

*See Section 2.1 for definitions of these types of studies.
**N.A. = Information was not available in article reviewed.

Table II

MAJOR CHARACTERISTICS OF STUDIES SELECTED FOR REVIEW

Study Authors	Type of Study* S=Simple Follow-Up L=Longitudina C=Comparative P=Predictive	Year of Study	Location	Length of Follow-Up Period (in Years)	Sample Type I=Formerly Institutionalized Persons N=Not Formerly Institutionalized Persons	Sample Size	Sex of Sample	Age Level (in Years)	IQ Level	Data Collection Methods R=Records M=Mailed Questionnaires I=Interviews with families, professionals, etc. IC=Interviews with Clients	General Remarks
Bobroff (1956a and b)	C	1953	Detroit, Michigan	12	N	121	92 M 29 F	28-30	$\bar{X}$ for β special class=72 $\bar{X}$ for special preparatory class=72	R, IC	Comparative study of economic and social adjustment of two groups of former students in secondary special classes: 1) Special β classes (self-contained); 2) Special preparatory classes (integrated in regular classes)
Bower and Switzer (1962)	P	1962	Connecti-cut	2	N and I	572	M and F	18-41	50-75	I	
Bowman and Hoffman (1969)	P	1968	Maine	4-10	I	410	M and F	18-62	≥50	R, M	
Collmann and Newlyn (1956, 1957a and b)	C	1954-1947	Essex, England	1-4	N	223 educationally subnormal (ESN) 200 mentally dull (MD) 106 intellectually normal (IN)	M and F	$\bar{X}$=23	$\bar{X}$ ESN=60 $\bar{X}$ MD=84 $\bar{X}$ IN=99	I, IC	Compares the employment success and leisure activities of these three subgroups

*See Section 2.1 for definitions of these types of studies.
**N.A. = Information was not available in article reviewed.

Table II

MAJOR CHARACTERISTICS OF STUDIES SELECTED FOR REVIEW

Study Authors	Type of Study* S=Simple Follow-Up L=Longitudinal C=Comparative P=Predictive	Year of Study	Location	Length of Follow-Up Period in Years)	Sample Type I=Formerly Institutionalized Persons N=Not Formerly Institutionalized Persons	Sample Size	Sex of Sample	Age Level (in Years)	IQ Level	Data Collection Methods R=Records M=Mailed Questionnaires I=Interviews with families, professionals, etc. IC=Interviews with Clients	General Remarks
Edgerton (1967)	L	1960 and ongoing	California	2-11	I	110	M and F	$\bar{X}$=34.6	$\bar{X}$=64.7	I, IC	A detailed description and case studies of the lives of mentally retarded persons in the community and the problems they face.
Edmonson (1974)	S	1969	Eugene, Oregon	N.A.**	N	23	M	$\bar{X}$=21	N.A.**	I, IC	To measure the social participation of males who were former special class pupils and former clients of Vocational Rehabilitation
Fairbank (1933)	L and C	1931	Baltimore, Maryland	17	N	122 mentally retarded subjects 90 normal controls = 212	M and F	N.A.**	N.A.**	N.A.**	To compare the adjustment of persons originally identified as mentally retarded as children in 1914 with a group of so-called "normal" persons
Hartzler (1953)	S	1947	Pennsylvania	1-10	I	191	F	N.A**	$\bar{X}$=73	I, IC	

*See Section 2.1 for definitions of these types of studies.
**N.A. = Information was not available in article reviewed.

Table II

MAJOR CHARACTERISTICS OF STUDIES SELECTED FOR REVIEW

Study Authors	Type of Study* S=Simple Follow-Up L=Longitudinal C=Comparative P=Predictive	Year of Study	Location	Length of Follow-Up Period (in Years)	Sample Type I=Formerly Institutionalized Persons N=Not Formerly Institutionalized Persons	Sample Size	Sex of Sample	Age Level (in Years)	IQ Level	Data Collection Methods R=Records M=Mailed Questionnaires I=Interviews with families, professionals, etc. IC=Interviews with Clients	General Remarks
Hegge (1944)	S	1944	Northville, Michigan	1-2	I	177	M and F	$\bar{X}$=17.2	$\bar{X}$=71.8	N.A.**	A study of occupational adjustment of institutional parolees during war-time economy
Jackson and Butler (1963)	P	1958	Laurelton, Pennsylvania	3	I	191	F	16-22	40-80	R	
Johnson (1946)	S	1945	Laconia, New Hampshire	10-20	I	243	M and F	N.A.**	55-65	N.A.**	
Kennedy (1962)	L and C	1960	Connecticut	12	N	179 mentally retarded subjects 102 "normal" controls= 281	M and F	20-30	45-75	I, IC	Comparison of personal, social, and economic behavior of subjects (classified as "morons" in 1938 census and originally interviewed in 1944) and "normal" controls.
Kraus (1972)	P	1972	Sydney, Australia	$\bar{X}$=23 months	I	74	M	$\bar{X}$=16.1	$\bar{X}$=70.5	R, I	To investigate the effects of supervised living in the community on the social adjustment of mentally retarded male juveniles.

*See Section 2.1 for definitions of these types of studies.
**N.A. = Information was not available in article reviewed.

Table II

MAJOR CHARACTERISTICS OF STUDIES SELECTED FOR REVIEW

Study Authors	Type of Study* S=Simple Follow-Up L=Longitudinal C=Comparative P=Predictive	Year of Study	Location	Length of Follow-Up Period (in Years)	Sample Type I=Formerly Institutionalized Persons N=Not Formerly Institutionalized Persons	Sample Size	Sex of Sample	Age Level (in Years)	IQ Level	Data Collection Methods R=Records M=Mailed Questionnaires I=Interviews with families, professionals, etc. IC=Interviews with Clients	General Remarks
Krishef (1959)	P	1957	Minnesota	3-7	I	58	M and F	18-21	"educable"	N.A.**	
Lambert (1974a)	P	1974	Ontario	N.A.**	N	450	M and F	18-65	48% mild 13.4% moderate 37.8% severe	I, IC	Studied the recipients of family benefits during 1973 by virtue of disability due to retardation. Identified the range of adaptive behaviors shown by these people.
Madison (1964)	P	N.A.**	Wisconsin	N.A.**	I	29	M and F	$\bar{X}$=25.6	N.A.**	R	
Mattinson (1970)	S	1965-1967	England	1-15	I	32	M and F	N.A.**	N.A.**	I, IC	A descriptive study of the marriages of 32 couples of which both parties had previously been institutionalized.
Hudd, Melemed & Wechsler (1968)	S	1966	Massachusetts	4-5	N	549	M	N.A.**	50-79	I, IC	Study of vocational adjustment of young men who had formerly been members of classes for the educable mentally retarded.

*See Section 2.1 for definitions of these types of studies.
**N.A. = Information was not available in article reviewed.

Table II

MAJOR CHARACTERISTICS OF STUDIES SELECTED FOR REVIEW

Study Authors	Type of Study* S=Simple Follow-Up L=Longitudinal C=Comparative P=Predictive	Year of Study	Location	Length of Follow-Up Period (in Years)	Sample Type I=Formerly Institutionalized Persons N=Not Formerly Institutionalized Persons	Sample Size	Sex of Sample	Age Level (in Years)	IQ Level	Data Collection Methods R=Records M=Mailed Questionnaires I=Interviews with families, professionals, etc. IC=Interviews with Clients	General Remarks
Rosen, Kivitz, Clark and Floor (1970)	P	1968	Elwyn, Pennsylvania	6 months-1 year	I	65	M and F	$\bar{X}$=28.8	$\bar{X}$=63.8	I, IC	
Saenger (1957)	S	1957	New York City	1-20	N	N.A.**	M and F	17-40	40-50	I	Only study which focused on the adjustment of "severely retarded" former pupils of special classes (IQ 40-50)
Shafter (1957)	P	1957	Woodland, Iowa	N.A.**	I	205	M and F	N.A.**	N.A.**	R	
Skaarbrevik (1971)	P	1967	Oslo, Norway	7-8	I	174	M and F	$\bar{X}$=26	$\bar{X}$=63	R	
Stephens (1967)	P	1964	Texas	N.A.**	N	125	M	18-26	50-75	I	
Windle, et al. (1961)	S	1952-1953	California	1-4	I	296	M and F	$\bar{X}$=20	$\bar{X}$=53	I	To study three groups of patients released from institution but who had to return; analyzed reasons for failure
Wolfson (1956)	S	1954	Newark, New Jersey	7-8	I	223	M and F	N.A.**	N.A.**	N.A.**	

*See Section 7.1 for definitions of these types of studies.
**N.A. = Information was not available in article reviewed.

3.0 INTRODUCTION TO FRAMEWORK FOR REVIEWING CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT

3.1 Definition of Terms

In the following sections, the criterion measures and predictors of community adjustment used in selected studies will be reviewed. In this review, criterion measures refer to variables used in the studies to measure the outcome of community adjustment. In many of the studies reviewed, the criterion measures of community adjustment are used only for descriptive purposes (e.g., in the simple follow-up studies) to describe community adjustment experiences of individual persons or groups. In other studies (e.g., the predictive studies), the criterion measures are used for analytic purposes, serving as the dependent variables in the analysis of independent variables related to successful community adjustment. Since it is the goal of this review to obtain the broadest perspective possible on studies measuring the community adjustment of mentally retarded persons, criterion measures which were used for either descriptive or predictive purposes will be discussed.

The criterion measures to be analyzed in this report have been divided into six major categories: 1) vocational adjustment, 2) social adjustment, 3) marital adjustment, 4) economic adjustment, 5) residential adjustment, 6) other measures of adjustment. These particular categories (discussed in Section 4.0) have been selected because they cover virtually all of the aspects of community adjustment which have been researched in the selected studies. The categories correspond to the major environments to which an individual must adapt when living in the community--home, work, social life, community life, etc. The criterion measure categories will be presented in order of their frequency of use in the selected studies.

Predictors in this review refer to the independent variables used in predictive studies to determine the major factors related to successful and non-successful community adjustment. The predictors of community adjustment have been divided into four basic categories covering the major types of independent variables which have been explored in previous studies: 1) Subject Variables, 2) Pre-Admission Variables, 3) Institution

Variables, and 4) Community Variables. These categories, discussed in Section 5.0, are not presented in order of their frequency of use in selected studies; instead, they follow the basic time periods of previously institutionalized persons--subjects' innate characteristics (subject variables), subjects' experiences prior to institutionalization (pre-admission variables), during institutionalization (institution variables), and after release from the institution (community variables).

3.2 Approach to Review

Two approaches could be used to review the measures and predictors of community adjustment used in previous studies: 1) a study-by-study approach in which each study's measures and predictors would be reviewed individually, 2) a variable-by-variable approach in which each type of criterion or predictor variable used across studies would be reviewed individually. There are advantages and disadvantages to both methods. The study-by-study approach would give a picture of the total set of variables used in each study and would present a more coherent, less fragmented picture of each study than the variable-by-variable method. On the other hand, the variable-by-variable approach enables the reviewer to look across the various studies and analyze the major types of variables from a broader perspective.

This report borrows from both approaches, emphasizing the latter. First, study-by-study summary matrices will be presented which list the criterion and predictor variables used in each of the selected studies. These matrices will then be followed by an in-depth variable-by-variable analysis of the criterion measures and predictors of community adjustment used across studies. It is hoped that the summary matrices will provide a coherent picture of each study and also serve as a useful reference point for the variable-by-variable analysis which will follow.

In the variable-by-variable analysis, each major criterion measure and predictor category (e.g., vocational adjustment, social adjustment or subject variables, community variables) will be described by identifying the major indicators of the measure. Indicators refer to those specific variables used to measure the general adjustment criteria and predictors. For example, in the description of the general vocational adjustment criterion which follows in Section 4.1, seven indicators of vocational adjustment (e.g., type

of job, wages, job satisfaction) are identified which have been used in the selected studies. Each indicator is then described in terms of frequency of its use and overall findings related to the variable in the selected studies.

3.3 Summary Matrices of Criterion Measures and Predictors Used in Studies

Two summary matrices are presented: 1) Criterion Measures of Community Adjustment used in Descriptive Studies (Table III), and 2) Criterion Measures and Predictors of Community Adjustment Used in Predictive Studies (Table IV). In Table III, only criterion measures are listed since, by definition, descriptive studies do not deal with predictor variables. In Table IV, both the criterion measures and predictors used in predictive studies will be referenced. The organizational categories listed across the matrices correspond to the major types of criterion measures and predictors which will then be analyzed on a variable-by-variable basis.

Table III: SUMMARY MATRIX OF CRITERION MEASURES USED IN DESCRIPTIVE STUDIES

Study \ Criterion Measure*	Vocational	Social	Marital	Economic	Residential	Other
Baller, Charles & Miller (1967)	Unemployment rate: not employed usually employed continuously employed	Social & recreational activity: membership & frequency of participation in community activities-- clubs, social organizations, church	Marital status: marriage, separation & divorce rates	Degree of self support Dependence on public relief	Location of residence: away from home community returned to home community remained in home community	Mortality rate Ability & performance: change in IQ as measured by WAIS Number institutionalized
Bijou, Ainsworth & Stockey (1943)		5 point social adj. rating scale with separate criteria for married, single girls From point 1 - Married: totally incapable of performing the duties of wife and/or mother Point 1 - Single: totally dependent both socially and economically To Point 5 - Married: performs the duties of a wife and/or mother excellently Point 5 - Single: Socially and economically independent; contributes to the welfare of others				

*Criterion measures refer to variables used to measure the outcome of community adjustment.

Study \ Criterion Measure	Vocational	Social	Marital	Economic	Residential	Other
Bobroff (1956a) (1956b)	Employability (the ability to acquire & retain jobs): a) degree of skill required in job (Dictionary of Occupational Titles) b) Number of jobs held c) Job tenure - length of time on current job d) Length of time necessary to find job e) Channels used by subjects to obtain employment f) Number and type of promotions received	Social participation in: family gatherings parties dances church attendances Presence of close friendships Leisure activities: sports hobbies travel short excursions television movies Voting record in November 1952 election Drivers' license Driver conduct (traffic ticket for moving violations) Arrests by police department Military service participation: branch of service duties rank	Marital status (married/not married /divorced/separated /remarried)	Income: hourly wages before taxes Security: ability to save money out of current income life insurance job layoffs welfare aid received Assets: property, bank accounts, securities		

Study \ Criterion / Measure	Vocational	Social	Marital	Economic	Residential	Other
Collmann and Newlyn (1956a) (1956b) (1956c)	Employment Success based on a 4-point scale: Success = secured and held jobs, generally not exceeding 3 in the first year after leaving school and at the time of interview was settled in employment Partial Success = = changed jobs frequently (more than 3 times) in the first year and was thus not settled in a job, but at the time of interview, was in employment Failure = had commenced work, had failed to hold a number of jobs, was unemployed at the time of interview, and generally was not trying to secure work Unemployable = those who generally because of marked handicaps, have never sought employment in the community	Leisure Activities: Sports Hobbies Observational interests--excursions, travel, TV, movies Social Activities: Family gatherings Parties Dances Organizations Voting Status: Have voted Have not voted but interested No interest in politics	Marital Status: % married and engaged			

Criterion / Measure / Study	Vocational	Social	Marital	Economic	Residential	Other
Edgerton (1967)	Making a living: Job history Number and types of jobs Wages Satisfaction with work	Client's relationship with others in the community (friends, family, and the community) Client's spare time activities	Information on sex, marriage and children		Condition of home Condition of neighborhood Possessions	Client's perception and presentation of self Client's practical problems in maintaining themselves in the community
Edmonson (1974)		3 dimensions of social participation for activities within home and outside of home: a) Range of participation for activities within home and outside the home b) Average level of responsibility in outside settings (6 point scale) c) Frequency of participation both within and outside the home				

Study \ Criterion Measure	Vocational	Social	Marital	Economic	Residential	Other
Fairbank (1933)	Type of Employment Rate of Employment: never worked/ temporarily working/ continuously working	Social Activity Active in sports, spectator, member of church Alcoholism Alcoholic/social drinkier/husband alcholic Sexual Behavior: Cases of promiscuity/prostitution Court Records: in juvenile court/ in police court types of offenses	Marital Status: Married/single/ widowed/divorced/ separated/remarried Children of subjects: Number of legitimate/illegitimate children Mental status of children: measured by Stanford revision of the Binet-Simon test			Social Agency Affiliation: Not identified with any agency/Family welfare cases/Temporary advice or help from other agencies
Hartzler (1953)		Avoidance of conflict with the law		Degree of self-support		
Hegge (1944)	Relationship of client to employer: employed by family/relative/ employed by outside Period of service on same job Wages Manner of obtaining job: with help/ independently					
Johnson (1946)				Degree of self-support		Degree of supervision by family and friends

-22-

Study \ Criterion / Measure	Vocational	Social	Marital	Economic	Residential	Other
Kennedy (1962)	Employment status Occupational level of job Mobility in job history Job stability Wages Work performance (9-item, 4-point employmer rating scale: absenteeism promptness learning rate judgment learning ability efficiency speed accuracy co-worker relations	Organizational Participation & Leisure Activities Incidence and types of court offenses Voting behavior	Marital status Age at marriage Size of family IQ & academic progress of children	Degree of self-support Ownership: Savings accounts Insurance Radios Telephones Television Cars Dependency & relief support		
Mattinson (1970)	Length of job stability (4-point scale	Criminal activity	Degree of marital participation in: a) Domestic management b) Employment c) Leisure d) Control & adjustment of differences e) Care of children f) Control of children g) Interest & encouragement of children	Financial Management Ability (4-point scale) Receipt of social benefit	Residential stability (4-point scale)	Use of personal case-work service Degree of support required from relatives, friends, neighbors, social services

Study \ Criterion Measure	Vocational	Social	Marital	Economic	Residential	Other
Mudd, Melemed & Wechsler (1968)	Current work status Gross salary/week No. months on current job Reasons for leaving job: voluntary/involuntary Salary compared to previous job: increase/no increase Number of jobs held Longest number of months on job Shortest number of months on job Use of job resources (formal/informal not used)	Leisure time activities Social involvement activities Draft Status: 1-A/other; 1-Y/4-F Police contacts Driver's License	Marital status: married/never married			
Saenger (1957)	Type of work done Job setting Amount of pay Length of period of employment How client attempted to secure work (with assistance/without assistance)	Ability to travel around neighborhood and community Use of leisure time Possession of friends Relationships with opposite sex	Marital status		Relationship between retarded person and immediate family Ability of client to be helpful in home Extent to which client presented a problem to parents and siblings	Use of community resources--what types of families attempt to use what types of community resources Types of plans made by family for future of retarded client Proportion of former pupils institutionalized
Windle (1961)						Community Failure = reinstitutionalization Reasons for community failure

Criterion / Measure / Study	Vocational	Social	Marital	Economic	Residential	Other
Wolfson (1956)						Overall: A = Continuous good adjustment B = Satisfactory continuous adjustment C = Temporary misconduct D = Serious maladjustment or Personality Disorder

TABLE IV

SUMMARY MATRIX OF CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT USED IN PREDICTIVE STUDIES

Table IV

SUMMARY MATRIX OF CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT USED IN PREDICTIVE STUDIES

Criterion Measures

Study	Vocational	Social	Marital	Economic	Residential	Other
Bell (1974)*	Type of Work: None/for family/ sheltered/ competitive	Social Activities: Church attendance Movies Restaurants Entertaining friends in home Visiting friends outside of home Arrest Record Drivers' License	Marital Status		Type of living situation: with parents or relatives/sheltered/boarding/ independent	Degree of independent living: home-no job/ home-job/ independent Types of problems encountered
Bower & Switzer (1962)	Job Success: Working currently on job which the individual has held for at least one year OR if the present job has not been held for that period, an immediately prior job had been held for that period and relinquished through no fault of the subject Job Level: Simple/complex (based on Dictionary of Occupational Titles)	Social adjustment derived from Vineland SQ and Stanford Binet IQ Absence of criminal or anti-social activities Absence of court records Absence of court convictions (other than traffic violations) Absence of illegitimate pregnancies and paternity suits				
Bowman & Hoffman (1969)	Wage Level	Stability of interpersonal ties Presence/absence of police contacts	Marital Status	Degree of self-support: Full/partial/ no self support		
Jackson & Butler (1963)						Having remained for a six-month period without return because of inadequate adjustment
Kraus (1972)	Employment stability: rate of jobs left of own accord rate of jobs dismissed from	Rate of court appearance			Residential stability: rate of residential settings left of own accord rate of residential settings asked to leave from rate of absconding from supervision	
Krishef (1959)						Remaining in the community = successful Returning to the institution = unsuccessful

*This study is ongoing. Other criterion measures and predictors may have been used during the course of the study. This chart reports only on those measures used as reported in the initial 1974 article.

Table IV

SUMMARY MATRIX OF CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT USED IN PREDICTIVE STUDIES
(Continued)

Predictors

Subject Variables		Pre-Admission Variables	Institutional Experience Variables	Community Variables
Demographic	Abilities & Disabilities			
	Intelligence Level			
	Personality measures Standardized measures from following tests: Stanford Binet Vineland Social Maturity Scale California Achievement Test Rorschach			
	Intelligence level General Health		Admission information Types training received Sexual behaviors Discharge conditions	
Age	Intelligence level Achievement Personality (based on Bolduc Social Value-Need Scale, 1960)	Pre-admission home environment, including economic, educational, & occupational level of family, age of separation from parents, urban-rural location of home, etc.		
	Intelligence level		Age at admission Number of institutional changes Number of visits Months in institutions Rating of institutional conduct Age at discharge	Number of months in community Receipt of invalid pension
Sex	Intelligence level Final school grade achieved		Number of visits by family to child at institution Number of vacations by child outside institution Work assigned at the institution Behavior in the institution Number of runaway attempts Length of time at the institution Length of time between initiation of the discharge planning and formal discharge Source of initiative for the discharge planning Age at time of discharge Planning for the type of home discharged	Location of community placement (urban/rural) Relationship to whom subject was discharged

Table IV

SUMMARY MATRIX OF CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT USED IN PREDICTIVE STUDIES
(Continued)

Criterion Measures

Study	Vocational	Social	Marital	Economic	Residential	Other
Lambert (1974)	Vocational stability	Social interaction		Economic security		Personal competency
Madison (1964)						Success = received a permanent discharge Failure = returned to the colony
Rosen, Kivitz, Clark & Floor (1970)	Number of jobs held, since discharge; number of months in community Amount of time unemployed since discharge General job satisfaction Working conditions Supervision Compensation Co-workers Sensitivity Occupational level (Dictionary of Occupational Titles)	Management of personal affairs Personal responsibility Problem areas Satisfaction with interpersonal relationships		Savings Amount Monthly Rent Gross Annual Income	Satisfaction with living quarters	Problem areas
Shafter (1957)						Success = discharge from the hospital Failure = return to institution
Skaarbrevik (1971)	Employment stability: Number of job changes in past two years	Criminality: Number of jailed offenses				Assistance from social agencies

Table IV

SUMMARY MATRIX OF CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT USED IN PREDICTIVE STUDIES
(Continued)

Predictors

Subject Variables		Pre-Admission Variables	Institutional Experience Variables	Community Variables
Demographic	Abilities & Disabilities			
		Capacity as Measured by: Intellectual ability (as measured by Current Beta IQ) Cognitive awareness (as measured by social knowledge scale developed for the study)		Family constellation Housing type Type of setting Residential stability Social distance Helpers--people assisting the subject
Age, Sex	Psychometric Data: Stanford-Binet Wechsler-Bellevue	Family Data: relatives with mental illness or who are mentally retarded criminal records in family alcoholism in family work record of subject prior to admission educational training received prior to admission	Number of admissions to institution Length of admission(s) Family contact after admission Sterilization at institution Illnesses at institution Academic/vocational/other programs received at the institution Behavior record at the institution Escapes attempted from institution Age at temporary discharge (TD) Staff consensus for TD	Duration of temporary discharge (TD) Family contact during TD
Sex, Age	Scale of employability Work evaluation scale Global rating scale Interpersonal rating scale WAIS verbal IQ WAIS performance IQ WAIS full-scale IQ Porteus Maze Test Bender-Gestalt Minnesota Rate of Manipulation Purdue Pegboard Metropolitan Achievement Test		Age at admission Age at discharge Years of institution	
	Psychological data Educational record Work record	Family background Pre-admission residence	Behavior in the institution	
	Intelligence level Other handicaps	Social background: working class/non-working class Geographical background: rural/non-rural		

Table IV

SUMMARY MATRIX OF CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT USED IN PREDICTIVE STUDIES
(Continued)

Criterion Measures

Study	Vocational	Social	Marital	Economic	Residential	Other
Stephens (1964)	Type of employment Level of employment Job tenure Rate of pay Reasons for failure or change in jobs Job satisfaction Adjustment to working conditions Initiative Care of materials and property Willingness to accept orders Safety consciousness	Leisure activities Participation in social activities Conformity to law Drivers' license Voting		Ownership of personal property Credit rating Dependents supported	Type of residence	Help received from social agencies Personal success Mental & physical health General satisfaction and optimism Desire to achieve Self-concept Emotional stability Effective interpersonal relations, respect for authority figures Capacity for change Skill in communication

Table IV

SUMMARY MATRIX OF CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT USED IN PREDICTIVE STUDIES
(Continued)

Predictors

Subject Variables		Pre-Admission Variables	Institutional Experience Variables	Community Variables
Demographic	Abilities & Disabilities			
	78 continuous and point scales and seven dichotomous scores drawn from instruments, including: Castenada-McCandles Anxiety Scale Peck Sentence Completion Scale Vineland Social Maturity Scale Brophy's General Satisfaction Scale Intelligence Quotient (from Stanford-Binet or WISC)			

4.0 CRITERION MEASURES OF COMMUNITY ADJUSTMENT

4.1 Vocational Adjustment

In studies assessing the community adjustment of mentally retarded persons, vocational measures of adjustment have been the most frequent and the most refined. The major vocational measures which have been used are:

1) Employment status;
2) Type of job;
3) Job stability;
4) Wages;
5) Procedures in finding job;
6) Work performance; and
7) Job satisfaction.

4.1.1 Employment Status

In most of the studies reviewed the current employment status of clients was used as one measure of adjustment. In some cases, the dichotomous criterion (currently working/currently not working) was used (Bell, 1974; Saenger, 1957). In other cases, this dichotomy was considered inadequate and efforts were made to include information on previous employment history as well as current status (Baller, Charles and Miller, 1967; Fairbank, 1933). For example, if persons were not currently employed, they were asked whether they were usually employed or had ever been employed.

One difficulty encountered in determining employment status is the problem of differential criteria for men and women. Should women who are full-time housewives and/or mothers be considered as workers or nonworkers? By excluding housewives and mothers from the count, the employment rate in some studies appears quite conservative. For example, in the Kennedy study (1962), a significant decrease in employment among female subjects was noted in the 1960 follow-up compared to the original follow-up in 1948. This decrease, however, might be explained at least in part by the facts that the percentage of women subjects in the study who were married and living with their spouse increased from 55% in 1948 to 73% in 1960 and that full-time housekeeping was not defined as employment in this study. Some studies have included wives and mothers in their definition of workers (Baller, Charles and

Miller, 1967; Hegge, 1944); some have excluded them (Bobroff, 1956 and 1957; Kennedy, 1962); others have created a special category (currently employed/housewife or working at home/not employed) (Saenger, 1957). Because different criteria have been used to measure employment status, it is difficult, if not impossible, to compare the findings of the various studies on this dimension.

It is interesting to note how the employment status of subjects has varied according to the economic conditions of the times. After reviewing the employment status findings of 22 major follow-up studies, Conley (1973) identified the level of aggregate demand for labor as a major factor affecting the vocational success of mentally retarded persons. For example, in studies conducted during the World War II period, extraordinarily high rates of employment were reported. Hegge found in his study of 177 persons released from Wayne County Training School in 1941-42 that 88% of these parolees were employed, a large proportion worked above the unskilled level, the large majority had held their jobs for three months or more, and that their wages were relatively high (an average of $48.38 per week for war workers) (1944). At the other extreme, however, the Baller study (1936) conducted during the depths of the Depression, found that only one in six retarded males and one in four retarded females had located relatively permanent employment. (These rates improved significantly when this same sample of persons was followed up again in 1951 and 1965.)

4.1.2 Type/Level of Job

Many studies have attempted to classify the type and/or level of jobs held by mentally retarded persons, usually using the categories specified in the Dictionary of Occupational Titles of the U.S. Employment Service -- professional and managerial, clerical and sales, service, agriculture, skilled, semi-skilled, unskilled, unclassified, unemployed, military, and homemaking (Bower and Switzer, 1962; Rosen, Kivitz, Clark and Floor, 1970; Stephens, 1964). These classifications are useful because they are standard and are utilized in employment studies of the general population as well as of mentally retarded persons. The problem in using them in follow-up studies of mentally retarded persons, however, is that the types of jobs of most mentally retarded persons tend to cluster in the semiskilled and unskilled categories of employment (Goldstein, 1964,

p. 242). Although this fact in itself is useful, it does not give details on the variety of jobs and tasks within the broad classifications of semi-skilled and unskilled. Given that the jobs of most mentally retarded persons cluster in only a few of those categories, it might be worthwhile to develop a more detailed job classification within those categories of jobs commonly held by them -- for example, assessing the levels and types of jobs within the semiskilled job category. To date very little has been done in this area.

This type of information would be useful in counteracting another major weakness in measures of vocational adjustment commonly used in follow-up studies -- the assumption that standard criteria of vocational adjustment can be used across persons in various types of jobs. Many critics complain that successful adjustment in one type of job might differ greatly (might in fact be negatively related) to successful adjustment in another occupation. For example, Kolstoe and Shafter (1961) criticize the indiscriminate way in which all occupations are grouped together, stressing that characteristics for success on one type of job might lead to failure on another. They suggest that research efforts address the predictability of success for specified types of jobs rather than simply "successful placement." In order to explore differential criteria of vocational adjustment in various jobs, more detailed information on the types and levels of jobs, as suggested above, would be most useful.

Other studies which have attempted to classify jobs have done so along other continua. For example, in the Bell study (1974) and others, jobs were classified according to whether they were jobs performed for family, sheltered employment, or competitive employment. Bell found that 47% of her High IQ Study Group of mentally retarded persons (mean IQ 67) were competitively employed part-time or full-time, 9% were employed in sheltered workshop situations, 6% worked occasionally or for their family and 36% did not currently work. She then compared the work status of these persons to the employment status of a comparison study group of Low IQ subjects (mean IQ 43): in the low IQ group, only 18% were competitively employed part-time or full-time, 10% worked in sheltered workshop situations, 15% occasionally or for family, and 56% did not work at all. This set of findings was consistent with the study's findings in other areas

of adjustment -- residential, social, community activities -- in all of these areas the High IQ group tended to "approximate desirable goals for community living" more closely than the Low IQ group.

In the Hegge study (1944), jobs were divided into two categories: 1) those in which the employer was a family member or relative; and, 2) those in which the employer was not related. Hegge found that the proportion of subjects employed in sheltered or protected situations by their families, relatives, and close friends was quite low (about 7%). The classification schemes used in the Bell and Hegge studies attempt to measure the independence or normality of the mentally retarded person's job in relation to the competitive employment market -- e.g., whether the job is sheltered or "created" for the person by family/friends.

4.1.3 Job Stability

One of the major criteria of vocational adjustment used in the selected studies has been job stability. Various approaches are used to measure this criterion. The most frequent standards of job stability used were the person's length of time on current job, and/or the number of jobs held since discharge or within a specified period of time. For example, the Collman and Hewlyn study (1956, 1957a and 1957b) defines employment success as having "secured and held jobs generally not exceeding three in the first year after leaving school and at the time of interview found to be settled in employment." Using this criteria, 61% of the subjects were successfully employed. Bower and Switzer (1962) used a more stringent definition of employment success: "working currently on a job (competitive employment in the open labor market) which the individual has held for at least a year or if the present job has not been held for that period, an immediately prior job had been held for that period and relinquished through no fault of the subject."

Several comments should be made about the use of job stability as a measure of vocational adjustment. First, it is difficult to interpret whether job stability is indicative of successful or unsuccessful adjustment unless more information is available about the nature and quality of the jobs held by the individual and the reason for the job changes. Traditionally, it has been assumed in these studies that the more job changes,

the less adjusted the person is. But this is not necessarily the case. Perhaps the person who changed jobs often moved progressively into better paying, more responsible jobs. Information on the reasons for a person's job changes has been used in some studies to help judge whether a person's job history implies successful or unsuccessful adjustment. For example, Kraus (1972) incorporates into his definition the rate of jobs left of the person's own accord vs. the rate of jobs from which the person was dismissed. Similarly, Bower and Switzer (1962) take into account whether previous jobs of subjects were relinquished "through no fault of the subject." Whether a person's job changes have been forced or voluntary helps to shed some light on the person's job stability. But this fact alone can not determine the success of the person's adjustment.

Information relating to job mobility (the other side of the "job stability" coin) has also been used in some studies measuring vocational adjustment. For example, Bobroff (1956a and 1956b) uses the type of job promotions as well as the other more traditional measures of stability -- e.g., number of jobs held and length of time on current job. He found that about 20% of the subjects received promotions to such positions as journeyman, leader, foreman, supervisor, civil service, and self-employed. Similarly, in the Mudd, Melemed and Wechsler study (1968), changes in salary (increase/decrease) were recorded for each job change of the subjects in the study working full-time (75% time or more). Three quarters of them received salary increases from their first to most recent full-time job. These measures provide qualitative information on the nature of a person's job changes and are therefore useful in evaluating whether a person's job stability or mobility indicates successful or unsuccessful adjustment.

Another point which must be noted about the criterion of job stability is that many of the follow-up studies are based on samples of former special education students within a few years after their having left the school systems (Mudd, et al., 1968; Bobroff, 1956; Collman and Newlyn, 1957). As Conley (1973) has pointed out, the poor employment stability records which are often found among the retarded may be largely a consequence of the fact that teenagers in general have relatively poor employment histories and retarded teenagers are no exception. The few

studies which have attempted to measure a person's adjustment over time have indicated that job stability tends to increase over time (Kennedy, 1962). Measures of employment stability too soon after discharge or graduation from school may provide extremely unreliable information.

4.1.4 Wages

The wages earned by a person have also been used in several studies to measure vocational adjustment. Some of these studies gather information solely on hourly wages without ascertaining the number of hours per week worked. Other studies used average weekly earnings of persons in order to reflect more adequately their earning power. It is difficult to compare the findings of these different studies on this criterion since wages vary greatly with economic conditions, labor demand, geographic region. In a few cases, the studies compared the wages of subjects with control or comparison groups. For example, Skaarbrevik (1971) compared the earnings of his subjects with the annual average income of the total population. Although Skaarbrevik found that the average annual income of subjects was much less than the annual average income for the total taxpaying population, he concluded that 47.5% of the male subjects (and six of the twelve women subjects working in 1966) were self-supposrting with a fairly good standard of living, according to Norwegian economic standards. In the Kennedy study (1962), no significant differences were found between the average wages earned by the subjects and the (non-retarded) controls.

4.1.5 Procedures in Finding a Job

Several studies use the job-finding procedure of the mentally retarded person as a criterion of vocational adjustment--namely, the channels used to obtain a job and the length of time necessary to find a job. For example, Hegge (1944) and Saenger (1957) gathered information on whether the mentally retarded persons obtained their jobs with help or located them independently. Hegge's study (at a time of wartime economy and high employment) found that relatively few persons needed assistance in locating jobs. Saenger (1957) found that 42% found work through their own initiative; the remaining 58% were most often working in their parents' or relatives' business or at the place where the parents themselves were employed. Mudd, Melemed and Wechsler

(1968) determined whether persons used formal, informal, or no resources in finding jobs. They found that most of the subjects counted upon informal resources, such as friends, relatives and personal initiative to find their jobs. In addition to gathering information on the channels used by people to find jobs, Bobroff (1956) also asked about the average length of time it took to find the jobs. An average of 84% of the subjects were able to find new jobs within a week.

Underlying these criteria is the assumption that a person who obtains a job without assistance is more independent, and therefore more adjusted, than a person who relies on others to help him/her find a job (e.g., help from family, formal/informal resources). It is difficult, however, to judge whether, in fact, persons are more dependent or less adjusted because they rely on others to help locate jobs. Many so-called "normal" persons find jobs through friends, family, employment agencies, but traditionally this has not reflected on their independence or adjustment. Thus, criteria of vocational adjustment tend to set standards of adjustment for mentally retarded persons that are higher than those expected of the general population.

4.1.6 Work Performance

Standards of work performance were used in only two of the selected studies (Stephens, 1964; Kennedy, 1962). In the Kennedy study, the employer of the subject was asked to rate the subject on a nine-item scale related to work performance: 1) accuracy of work; 2) speed of work; 3) speed of learning; 4) reliability of judgment; 5) capabilities of person for skilled job; 6) average monthly absentee rate; 7) average monthly tardiness rate; 8) efficiency of worktime; and, 9) ability to get along with others.

Kennedy found that while, in general, employers rated the control group members (non-retarded) higher than subjects, the difference was statistically significant on only one criterion -- learning rate. In the Stephens study, employers were interviewed regarding the subjects' adjustment to working conditions, initiative, care of materials and property, willingness to accept orders, and safety consciousness. These rating scales were then used in a multivariate analysis of factors related to the concept of success and of the predictors which might be associated with it.

Several factors emerged in this analysis which were related to the work performance scales. Because the investigation involved the interaction of so many variables, however, the findings as they relate to these particular work scales are extremely complex and are difficult to summarize in a fashion meaningful to this review.

Work performance ratings attempt to incorporate qualitative measures of adjustment based on employer's perceptions of the subject's work performance. It is unfortunate that such scales have not been used more frequently, since they provide direct perceptions of the subject's adjustment by those immediately involved in the subject's environment. The perceptions of those directly involved with subjects are often more valuable "yard sticks" of adjustment than standards or judgments arbitrarily imposed from outside observers. For example, if an employer is satisfied with the worker's performance across a variety of dimensions, it can be assumed that that individual has adjusted well to the demand of his work environment. If a person is given low ratings on the scale, one can assume that s/he is having adjustment problems.

4.1.7 Job Satisfaction

Two studies attempted to use scales of job satisfaction (Rosen, et al., 1970; Stephens, 1964) in their measures of vocational adjustment. Rosen, et al., incorporated six subscales of the Minnesota Scale of Employment Satisfaction into their measure of vocational adjustment -- general job satisfaction, satisfaction with working conditions, supervision, compensation, co-workers and sensitivity. In the Stephens study, subjects were asked how satisfied they were with their current job. (The specific findings on these job satisfaction scales were not reported in the articles reviewed.)

Measures of client satisfaction, although used infrequently in the selected studies, run across the various adjustment categories--e.g., client satisfaction with job, social relationships, living situation. Although there are many methodological problems related to interviewing mentally retarded persons, and specifically about such abstract concepts as satisfaction or happiness, client satisfaction should remain an important component of community adjustment. Measures of client satisfaction reflect a relative notion of adjustment, in which the adjustment process is viewed as a two-way

street. Not only is it important to obtain the satisfaction of those directly involved with the subject (e.g., employer satisfaction with the subject's work performance or family's satisfaction with the subject's home adjustment) but the satisfaction of the subject himself/herself is crucial. Without these two conditions, successful adjustment may not take place.

The relationship of satisfaction/happiness to adjustment raises an interesting theoretical issue. If a person is satisfied with his living situation, work situation, or any other situation, does that mean that s/he has adjusted well to his/her environment? Can satisfaction be equated with adjustment, or should it rather be included more frequently as one of the many components of community adjustment?

4.2 Social Adjustment

A variety of measures of social adjustment were used in the selected studies, spanning many different dimensions. In general, the measures can be classified into the following five categories:

1) Conformity to law and social mores;
2) Participation in leisure-time activities;
3) Civic participation;
4) Friendships and interpersonal relationships; and,
5) Satisfaction with social life and relationships.

The social adjustment measures were the second most frequently used set of criteria in the selected community adjustment studies. The popularity of these measures perhaps reflects the importance placed in our society on social interactions and relationships. It appears that these types of measures have been used increasingly in the more recent community adjustment studies. This may be due, in part, to the pressure exerted in the last decade by professionals, families, and retarded persons themselves for more social opportunities for persons released from institutions into community settings. It has been found too often that persons, even with a job or a secure home setting, are unable to "make it" in the community because of social isolation and social problems (Edgerton, 1967; Lambert, 1974b). Although some persons may have received training in the institution, rarely did they acquire social skills such as making friends, using leisure time appropriately, and community resources (Edgerton, 1967). And although

many communities have moved toward providing vocational and residential opportunities for mentally retarded persons, there has been little work on providing social and recreational opportunities in the general community (Lambert, 1974b).

Unfortunately, these types of variables are often the most difficult to measure reliably, given the sensitive nature of the questions (particularly regarding conformity to law and social mores). Information on these variables is sometimes asked directly of the subjects, or of their families or professional staff. Or in some cases, it is collected from official records such as of the police or courts. It is difficult to compare the findings of different studies, because the sources of their data vary tremendously.

4.2.1 Conformity to Law and Social Mores

Conformity to law and social mores was by far the most frequent measure of social adjustment used, and accounts for the popularity of the social adjustment measures in general. The majority of variables related to this dimension focused on the criminal behavior of subjects; other related social problems addressed were promiscuity and prostitution (Fairbanks, 1933), illegitimate pregnancies (Bower and Switzer, 1962), and alcoholism (Fairbanks, 1933).

Twelve of the studies attempted to measure variables related to criminal activity. The concept of "criminal activity" was operationalized in a variety of ways by the different studies, including subjects' contact with police, arrest records, conviction records, court offenses, and jailed offenses. Obviously, the use of different operational measures yields different types of information. Some are more stringent measures of criminal activity than others. The number of jailed offenses is a much more limited definition of criminal activity than, for example, a person's police contacts. It becomes, therefore, extremely difficult to compare the findings on conformity to law across the various studies because of the combination of data gathering and definitional differences.

In the Kennedy study (1962), the differences between the group of mentally retarded subjects and the normal control group on a variety of measures of anti-social behavior were found to be statistically insignificant. For example, the proportions having court records, the proportions of single and multiple arrests, the dispositions of the arrests, and the kinds of

violations were found to be essentially the same for retarded and non-retarded subjects. The only criterion of anti-social behavior in which statistically significant differences were found between the two groups was violations involving motor vehicles in which the control group appeared more unfavorable than the subjects. This, however, was probably due to the fact that a larger proportion of the control group than subjects were owners of automobiles.

However, other studies have reported findings which are not as favorable as the Kennedy findings. For example, policy and court records of subjects were studied in the Charles follow-up (1957) of mentally retarded persons. A substantial proportion of the male subjects had been involved in some infraction of the law. Excluding traffic violations, about half of the male subjects had been arrested and prosecuted for some law violation. However, despite the high percentage of violations, Charles noted that the kinds of infractions did not suggest a dangerous criminal population. Drunkenness was the commonnest complaint, complicated by unnecessary noise, assault, trespass, etc. The rest of the offenses included wife and child abandonment, stealing, disturbing the peace, failure to license dogs, and the like.

4.2.2 Participation in Leisure-Time Activities

At the very least, studies measuring leisure-time participation gathered information on whether or not the subject participated in/attended a variety of activities such as: television, movies, hobbies, sports, travel, restaurants, parties, dances, family gatherings, churches, and clubs. But a subject's rating on a checklist of leisure-time activities does not in itself provide a great deal of information as to the nature or quality of his/her participation. For this reason, some studies have gathered additional information such as frequency of participation in each leisure-time activity. For example, in the Collmann and Newlyn study (1957b), the leisure activities and civic responsibilities were examined of a group of young men and women who were ex-pupils of special schools for the "educationally subnormal" (mentally retarded). The activities were then compared to two additional groups -- a group of mentally dull (borderline) students and another group of intellectually normal pupils. In most of the post-school leisure activities investigated, the types of activities and frequency of participation of the educationally subnormal ex-pupils were almost identifical with the two higher IQ study groups.

Edmonson (1974), in addition to measuring rate and frequency of participation, divided leisure time activities into two subsets: those performed within the home and those outside the home. For these two subsets, the families were asked to rate the subjects on a five point scale regarding their average level of responsibility in these activities. This data enabled the researchers to evaluate the quality of the subjects' participation and the relationship of participation to their social competence. Specifically, the scores on three dimensions of participation -- range of activities, frequency of participation, and level of responsibility -- were examined for their relevance to ratings of social competence, measured by a team of rehabilitation counselors using a nine-point rating scale. It was found that social competence ratings were significantly correlated with level of responsibility, range and frequency of participation scores.

4.2.3 Civic Participation

Measures of civic participation were addressed in only six of the selected studies. The three basic measures used were:

1) Voting behavior: whether the subject was a registered voter and/or had voted in any elections within a specified period of time.

2) Driver's license: whether the subject possessed a driver's license.

3) Military service participation: whether the subject (if male) had participated in the military service, and if so, the branch of service, his duties and rank.

In the Collmann and Newlyn study (1957b), 50% of the educationally subnormal group had voted in the local government elections. The authors of the study felt this voting record compared favorably to general voting records -- they cited that in most local government elections, the percentage poll was seldom above 50%. In the Bobroff study (1957b), an average of the subjects had voted in the Eisenhower-Stevenson presidential election in 1952.

Regarding possession of driver's licenses, 64% of the 121 subjects in the Bobroff study had passed both the written and performance driving tests and had acquired drivers' licenses. In the Bell study (1974) only

a total of 13 persons of 190 responded that they drove. Of course, the findings of these two studies are not comparable since possession of a driver's license and actual driving frequency are two independent variables. Also, the characteristics of the sample groups in these two studies differed greatly, particularly in level of IQ of subject.

Military service participation as a measure of civic responsibility was used in only two of the selected studies (Bobroff, 1956b; and Mudd, et al., 1968). Seventy-two percent of the male subjects in the Bobroff study had participated in military service in a variety of duties. The proportion of those participating who became non-commissioned officers was about 60 percent. None of the subjects was a commissioned officer. In the Mudd, Melemed and Wechsler study, a minimum of approximately 13 percent of the total study population of 866 met the requirements for serving in the Armed Forces.

Civic participation has not been widely regarded as an important dimension of social adjustment. Perhaps participation in such activities reflects a high order of adjustment which has not been generally expected of mentally retarded persons. This is indeed unfortunate, since information on civic participation would shed light on subjects' abilities to take advantage of their full rights as citizens of their communities and country. Given the current emphasis on civil rights and responsibilities of all minority groups, measures of civic participation should be incorporated into future studies of community adjustment.

4.2.4 Friendships and Interpersonal Relationships

Variables related to friendships and interpersonal relationships have also been largely ignored in community adjustment studies. Only four of the selected studies attempted to measure these variables, and even they gathered rather limited information. Bobroff (1956b) attempted to determine whether subjects had any close friends and Saenger (1957) gathered similar data in addition to information on whether the subjects had any relationships with the opposite sex. These types of data are extremely difficult and sensitive to gather. Asking a family or mentally retarded subject whether s/he has any close friends can be extremely threatening. The subject may tend to exaggerate information about the presence of friends in order to appear well adjusted, popular, normal, etc. In addi-

tion, terms such as "close friend" or "relationship with the opposite sex" are very ambiguous -- what one person considers to be a close friend might be regarded as an acquaintance by another. Clear definitions of these terms have not been used in any of the studies. Perhaps this is why other studies have not incorporated measures of this dimension.

In the Bobroff study (1956b), close friendships were reported by 75 percent of the subjects. In the Saenger study (1957), however, only one-half of the subjects were said to have friends. The majority of their friends were of normal intelligence, and either of the same age or older than the subjects. Older subjects found it more difficult to make and keep friends than the younger ones. While 61 percent of the younger subjects (17-20 years of age) were said to have friends, only 35 percent of the older groups (30 years of age and older) had any friends. Regarding relationships with the opposite sex, Saenger reported that the majority of subjects "showed no interest in members of the opposite sex. Only one out of four had friends of the opposite sex, and only four percent appeared to have had sex relations" (p. 165).

Two points must be noted regarding these friendship findings in the Saenger study. First, it was based on a sample of what Saenger termed "severely retarded" adults (IQ range 40 to 50). It is one of the few studies which has attempted to follow up persons of this level of retardation. The findings regarding this population might therefore be very different than findings for less severely retarded populations. This may account for the discrepancies between the Bobroff findings on these variables and the Saenger findings. Secondly, the Saenger study is based completely on interviews with family members about the mentally retarded subject -- no attempt was made to interview the subject directly. The data on such personal and sensitive issues as friends and relationships with the opposite sex may be particularly unreliable in this case because it is second-hand.

In the Bell study (1974), the presence of friendships was measured only slightly less obtrusively than the studies mentioned above. Instead of asking outright whether the subject had any close friends, respondents were asked how often subjects visited friends outside of their home and how often friends visited them in their own homes. This approach avoids

the definitional problems and instead focuses on a single aspect of friendships -- visits in homes with friends. Sixty-nine percent of the high IQ study group in the Bell study had friends visiting at their own homes once or more during the previous month compared to 52 percent of the low IQ study group. Similarly, 80 percent of the High IQ group visited at their friends' homes once or more during the previous month compared to 53 percent of the Low IQ group.

4.2.5 Satisfaction with Social Life and Relationships

As in the areas of vocational and residential adjustment, measures of subject satisfaction with social life and relationships have been almost totally ignored. In only one study (Rosen, et al., 1970) was an attempt made to measure this dimension. Subjects' satisfaction with their interpersonal relationships was incorporated into the measures of community adjustment. For reasons discussed in the vocational adjustment section of this report, the inclusion of measures of subject satisfaction are vital to studies of community adjustment.

4.3 Marital Adjustment

The marital adjustment of mentally retarded persons living in the community has been included as a criterion measure in many of the selected studies. This aspect of community adjustment has been examined frequently probably because it touches on so many legal and ethical issues related to the rights of the mentally retarded which have been raised throughout the decades -- namely, the ability and right of mentally retarded persons to marry and raise families, the eugenic implications of the offspring of mentally retarded persons, the role of sterilization, etc. Probably because so much concern has always been focused on these issues, most studies measuring the community adjustment of mentally retarded persons have, to varying degrees, examined marital adjustment.

The first classic follow-up study by Fernald (1919) looked in great detail at the marital adjustment of mentally retarded persons who had left Waverly State School. This study was conducted during the height of the eugenics movement when mentally retarded persons were viewed as threats to the social order. Needless to say, Fernald and his colleagues were surprised to find that a large group of their subjects were married, raising families in a responsible and adequate manner.

Most of the studies which have looked at marital adjustment have limited their measures to the current marital status of subjects -- number of subjects married/separated/divorced/widowed/remarried/never married. In some of these studies (Charles, 1957; Fairbank, 1933; Kennedy, 1962; Skaarbrevik, 1971), the marriage and divorce rates of subjects were compared to the rates of non-mentally retarded control groups or national census data.

Three studies (Fairbank, 1933; Kennedy, 1962; and Mattinson, 1970) focused in more detail on issues other than current marital status, including the number of offspring of the marriage, number of legitimate and illegitimate children, and the marital status and academic achievement of the offspring. Data on the characteristics of offspring are particularly interesting because the ability of the mentally retarded persons to responsibly raise families has always been questioned. It has been difficult to gather these data, however, because they are of such a sensitive nature. Many of the families, embittered by their own experience in this area, have refused to allow their children to be "tested" or "evaluated" for studies of community adjustment.

In the Kennedy study (1962), data was gathered on the IQs and academic progress of the children of mentally regarded subjects. A comparison of the IQs of the children of subjects and controls (non-retarded) revealed no significant statistical difference between the two groups. However, a comparison of the academic progress of the children of subjects and controls revealed a marked significant statistical difference, in favor of the children of controls, who progressed at a faster rate in their school work than the children of subjects.

The Mattinson study (1970) is perhaps the most thorough investigation of the marital adjustment of mentally retarded persons. Conducted in England, it presents case studies of 32 couples of which both parties were mentally handicapped and were previously patients at an institution. This study explored whether these married couples were capable of maintaining life in the community with reference to their ability to work, to maintain and manage a home, and to bring up children in a manner acceptable to the community. Also investigated was the amount of help and support these couples required from relatives, friends, neighbors, and social services

to maintain their life in the community. The overall conclusion drawn in this study was that in general, these couples were able to function in the community with the support of helpers, and that the couples tended to reinforce each others' strengths in these marriages.

4.4 Economic Adjustment

Economic adjustment dealt mainly with the subject's ability to be economically self-sufficient. Two major groups of variables were used to measure economic adjustment:

1) Self-support measures, and
2) Ownership measures.

4.4.1 Self-Support

Self-support variables were by far the most popular measures of economic adjustment used in the studies. Two studies used the subject's gross annual income as an indicator of self-support (Rosen et al, 1970; Skaarbrevik, 1971); other studies used the subject's dependence on public welfare or relief (Baller, Charles and Miller, 1967; Kennedy, 1962; and Mattinson, 1970). In the Baller, Charles and Miller study (1967), which measured degree of self-support in three study groups--the "Low" or mentally retarded group, the "Middle" or borderline group and the "High" or average intelligence group--it was found that:

> ...Middle and High Group subjects were almost all self-supporting and that...although dependence on public support was somewhat higher for Low Group subjects than the national average, they had shown steady improvement in self-support over the years. In 1935, only 25 percent were found to be fully self-supporting and 57 percent more partially self-supporting. By 1950, the figures on complete self-support had risen to 67 percent with another 16 percent needing only some relief to get along. (p. 310)

Kennedy's (1962) data on relief records of the subjects and controls (non-retarded) revealed no significant differences on the following measures: amounts of relief received; number of agencies from which relief was received; the kinds of relief received.

4.4.2 Ownership

The second set of economic adjustment measures -- ownership measures -- consisted of variables related to the subjects' assets and possessions -- e.g., savings accounts, life insurance, homes, property, cars,

televisions, telephones, and radios. Kennedy (1962) found five ownership measures to be statistically different for the subject and control groups in her study: more controls than subjects owned their homes, owned automobiles, had savings accounts, maintained a bank account, and had telephones in their homes. These findings point to the fact that subjects were less well off than controls on these criteria.

The assumption underlying these measures is that economic adjustment is based on an ability to support oneself in a style similar to that of non-retarded persons. These measures reflect the value placed in this society on self-sufficiency and the ability to "hold your own" financially.

4.5 Residential Adjustment

Residential adjustment refers to a person's adjustment to his/her residential setting or home environment. In the different studies of community adjustment, the types of residential settings in which clients lived have varied tremendously. Some studies followed up clients living in a number of different community settings--group homes, boarding homes, natural families, foster homes, independent and semi-independent settings. Other studies have focused on persons residing in a particular type of setting--Kraus' study (1972) of mentally retarded persons living in supervised boarding homes, Edgerton's study (1967) of persons living independently.

Regardless of the types of settings surveyed, little has been done in any of these community adjustment studies to measure the person's adjustment experiences in his/her living situation. It is ironic and unfortunate that the immediate home environment has not played a greater role in measures of community adjustment, given the amount of time which most individuals spend in in the home environment and the variety of skills and interactions considered necessary to adjust in this setting.

The few dimensions of residential adjustment which have been investigated in studies fall into the following categories:

1) Type of living situation
2) Residential stability
3) Interpersonal relationships in home setting
4) Satisfaction with living situation

A brief description of these measures follow.

4.5.1 Type of Living Situation

In the Bell (1974) study, clients' living settings were classified along a continuum of independence. At the least independent extreme were clients living with parents or relatives. (60% of the High IQ group, 84% of the Low IQ group) At the most independent extreme, were clients living by themselves. (24% of the High IQ group, 8% of the Low IQ group) Between these two points on the continuum were semi-independent settings such as sheltered dormitories and boarding homes. (16% of the High IQ group and 8% of the Low IQ group) Bell then incorporated this classification of residential settings into an index of "independent living" which was used as one of the many measures of community adjustment in the study. In this study she combined the type of living settings (independent/non-independent) and employment status (working/not working) to develop a measure of the degree of independent living of the client.

The measure assumes that certain types of settings are inherently more independent for clients than others--that is, a person living with his/her natural family or relatives functions less independently than a person living alone or a person living in a semi-independent setting such as a boarding home. This assumption, however, may not be valid. It is not necessarily the case that a person living with his parents is less independent (and therefore, less adjusted) than someone living alone. The person living alone may actually be very dependent and require a great deal of supervision from persons outside of his immediate home, while the person living with his natural family may not be dependent at all--in fact, there may be persons in his/her natural family that are dependent upon him/her. Also, the setting in which a person lives may be a function of what is available in the community, not of the individual's ability or adjustment potential.

It is difficult to rate settings on a scale of independence unless more information is available on the abilities and performance of the particular individual and the expectations and demands of the specific setting.

4.5.2 Residential Stability

The residential stability of a person has been used as a component measure of community adjustment. In some of these studies, the number of places the client lived since discharge or within a specified time period was used as a measure of his/her residential stability. In other studies,

stability was assessed by the location of the person's residence--either the client remained in his/her home community or the client moved away from his/her home community. For example, Baller, Charles & Miller (1967) found that more than 65% of the low group subjects had remained in or returned to the home community compared to about 40% of the other two groups. The fact that such a large proportion remained in their home communities was interpreted by the authors as a potential factor in easing or avoiding some adjustment problems for these people.

In the Kraus study (1972), three variables were used as measures of residential stability:

1) rate of residential settings left of own accord;
2) rate of residential settings from which asked to leave; and
3) rate of absconding from supervision.

These three rates were used to establish whether the person's residential stability (or lack of stability--i.e., mobility) had been initiated by the person or by the setting. That is, the study investigated whether the changes in the person's living situation had been voluntary or forced.

The concept of residential stability as a measure of community adjustment is tenuous. Can we assume that someone who has stayed in the same setting since discharge is more adjusted than someone who has moved places many times? Does the fact that a person has remained in his/her home community since discharge indicate that s/he is more stable (and therefore more adjusted) than someone who has moved away from his/her home community? Perhaps the person who moved many times moved progressively into better living conditions or more independent settings. As with job "stability," it is difficult to interpret whether residential stability is a measure of community adjustment unless we know the nature and quality of the residences to which the person moved, and the reasons for the changes in residences. For some persons, many moves might indicate successful community adjustment; for others, it might indicate failure.

4.5.3 Interpersonal Relationships in Home Settings

In only one of the studies reviewed was an attempt made to measure a qualitative aspect of residential adjustment--the interpersonal relationships of the client in his/her home settings. Saenger (1957), in his follow-

up study of 520 severely retarded adults living with their families in New York City used the following variables (based on family perceptions) as measures of residential adjustment:

1) relationship between the retarded peer and immediate family;
2) ability of the client to be helpful in the home setting; and
3) extent to which client presented a problem to parents and siblings.

It was found that most parents did not see their retarded son or daughter as a major impediment (20%) and that their retarded child was easy to get along with, presenting no major difficulties (75%). In general, the subjects tended to be helpful around the house, with one out of five assuming major responsibility in keeping house.

These variables give a good indication of the client's adaptation to his/her particular environment, since they are based on the family's perceptions of the client's adjustment. The measures are consistent with a concept of community adjustment which is relative. A client with particular attributes may in one family setting be viewed by his/her family as well adjusted, helpful, non-problematic, and in other settings, the same person might have been viewed as poorly adjusted, problematic, etc. That is, a person's adjustment can be viewed only in the context of the expectations and demands of the particular setting in which s/he lives.

4.5.4 Satisfaction with Living Situation

In only one study reviewed (Rosen et al., 1970) was satisfaction with living situation incorporated into a measure of community adjustment. Clients were asked how satisfied they were with their current living situation. This variable was then incorporated into a factor analysis of 22 criteria of community functioning. (The specific findings on this variable were not available in the article reviewed.) As discussed in Section 4.1.7 on job satisfaction, client satisfaction measures, traditionally ignored in these studies, are vital to assessment of community adjustment.

4.6 Other Criterion Measures

Not all of the criterion measures used in community adjustment studies fall neatly into the major measurement categories which have been used

in this report (e.g., residential, vocational, economic, social and marital). Two other measures used in the selected studies will be discussed in this section:

1) institutionalization of subjects, and
2) dependence of or supervision required by subjects.

4.6.1 Institutionalization

Institutionalization or reinstitutionalization has been used frequently in community adjustment studies as a measure of maladjustment. That is, remaining in the community has been equated with successful community adjustment; returning to the instititution has been equated with failure to adjust. Some studies used this variable as one of their many different measures of community adjustment (Baller, Charles & Miller, 1967; Saenger, 1957). But the majority of the studies utilizing this measure used it as the sole criterion of community adjustment (Jackson & Butler, 1963; Krishef, 1959; Madison, 1964; and Shafter, 1957). All of the studies which used institutionalization or reinstitutionalization as the sole criterion were predictive studies to facilitate relating a large set of independent variables to a single dependent measure. Institutionalization as a single dependent measure is so popular because of its measurability and the ease in gathering this information.

Unfortunately, the quality of the data is sacrificed for measurability and ease. Equating successful adjustment with merely staying out in the community or defining failure to adjust as returning to the institution is fallacious. These definitions fail to provide any information on the quality or level of the adjustment of individuals in the community and fail to account for the fact that adjustment can be relative to the setting or environment in which the person lives. Many persons return to institutions for reasons totally unrelated to their community adjustment--e.g., the person's community residence closed down because of lack of funding, the person's parents died and no one else was available to supervise the person, etc. If one uses hypothetically the case of a particular individual (with specific abilities and disabilities), it is conceivable that in one setting and under one set of circumstances this person could make an adequate adjustment and in a different setting with different circumstances this same person would need to return to the institution. A full evaluation of community

adjustment therefore implies information on the context of the individual's environment, as well as information on the specific characteristics of the individual.

4.6.2 Dependence on Supervision

A second "other" measure used in these selected studies has been the degree of dependence on supervision required by subjects to function in the community. Generally, studies have rated subjects on how dependent they are upon social agency assistance (e.g., casework services, counselling, etc.) and upon supervision by families, close friends, and other "benefactors." Perhaps the best known study examining this dimension is the Edgerton (1967) followup of 110 former patients of an institution for mentally retarded persons. The purpose of this study was to examine some of the ways in which mentally retarded persons manage their lives and perceive themselves and their everyday lives in the community. Unlike most followup studies which tend to collect statistical data across subjects on various measures or criteria of adjustment, Edgerton presents extended portraits or case studies of selected persons. The major conclusion which Edgerton drew from these case studies was that with few exceptions, the subjects would have been unable to maintain themselves in the community without the active intervention of one or more "benefactors"--normal persons who help them with their many problems. The main roles that these benefactors played have been 1) assistance with the practical difficulties of coping with everyday problems; and, 2) assistance with the problems of passing as "normal" and denying the label of "mentally retarded" assigned to them for so long.

Theoretically, measures of dependence or supervision can be viewed from two perspectives: 1) how dependent the individual is on the assistance and supervision of others; or 2) how supportive the environment is of the person and his/her needs. The first, more traditional perspective assumes that dependence or supervision implies less of an adjustment on the part of the indivudal than independence. The second viewpoint, however, takes the "burden" or responsibility for adjustment off of the individual and looks more generally at the interaction of the person with his/her environment. The fact that an individual must rely on others for supervision becomes less of an issue; the ability of the environment (family, friends, social agencies) to meet the individual's needs becomes the important factor in the adjustment process.

The majority of studies have used measures of dependence or supervision according to the first, more traditional framework. Two recent studies, however, (Bell, 1974; Lambert, 1974) have begun to explore this second perspective.

Lambert developed a theoretical model of adaptive behavior in the community which explored the interaction between the behavior of the individual, the person's capacity, and the environmental milieu. "Helpers"--those benefactors or people who helped the retarded to function in the community--were found to be a major environmental factor in his analysis. However, instead of the helpers modifying the adaptive behavior of the mentally retarded persons living in the community (as originally hypothesized in his analysis), Lambert found that the nature of the person's behavior resulted in the kind of assistance he received from those individuals, groups, and organizations collectively labelled as helpers. He found that those scoring lowest on a self-help scale received the least help from groups and organizations and those scoring highest on a social interaction scale received the most help from all sources. Lambert suggested that it may require a certain degree of skill on the part of clients to obtain assistance.

Sigelman and Bell (1975) describe an exploratory investigation of three environmental support factors which they suggest should be incorporated into models of community adjustment. The three factors explored were supervision style (the way in which parents, houseparents, and others "oversee, direct, or manage" the residents), contact with agencies and organizations, and community acceptance of the mentally retarded person. Because their paper was exploratory and theoretical, there were no specific findings in their initial exploration; but their work and that of Lambert point to a new direction in recent research--an investigation of environmental variables in assessing the community adjustment of mentally retarded persons.

One final issue should be raised regarding the use of measures of dependence as criteria of adjustment. Most people are dependent on others for various needs--socialization, financial support, psychological support. Could it be that we expect mentally retarded persons to be less dependent than the average person living in the community? Caution must be exercised not to apply higher standards of adjustment for mentally retarded persons than we would find reasonable for ourselves. It would be most useful to "norm" the measures used in these follow-up studies on non-retarded populations as well.

4.7 Summary

The criterion measures of community adjustment, used in the selected studies span many areas, environments, and contexts. In reviewing all of these measures, it becomes apparent that a basic set of characteristics underlies all of these variables. That is, certain values or qualities seem to run through all of the measures. Instead of categorizing criterion measures according to their basic substantive or content area (e.g., vocational adjustment, residential adjustment, social adjustment, etc.), it might be useful in this section to summarize the functional characteristics which run across the various categories. The following set of characteristics can be extracted from the various categories:

1) Competence
2) Independence
3) Stability
4) Socialization
5) Conformity
6) Satisfaction

Most of the measures used in these studies relate to one or more of these characteristics. A brief description of these characteristics and the major sets of measures which relate to them follows:

- Competence

The competence of an individual to perform various tasks or skills underlies many of the measures--for example, the person's work performance, ability to earn a living, vote, drive a car, etc. Generally, it has been assumed that the more competent a person is in performing those skills necessary to function in the community, the more adjusted s/he is.

- Independence

Not only must a person perform certain skills in the community, s/he must do so as independently as possible. Depending upon others for assistance and supervision in carrying out one's roles and obligations has implied less of an adjustment than being able to perform these activities independently. The value of independence or self-sufficiency is reflected in such variables as degree of economic self-support and degree of reliance upon social agencies, families and friends for supervision.

- Stability

The stability or security of an individual within the various contexts of community life is also a basic value inherent in the various measures. The more stable a person has been in his/her activities, the more adjusted s/he is viewed. In most cases, stability has been defined as length of time one has been involved in a particular activity. The measures of job, residential, and marital stability reflect this basic value.

- Socialization

A person's socialization in his/her environment is another underlying characteristic. Not only is it considered important to perform certain skills independently and consistently over time, but an "adjusted" person is one who interacts positively with others in the environment. Hence, the person's ability to get along with others is included in the measures of residential and vocational adjustment, and the possession of friends is used as a criteria of social adjustment.

- Conformity

Underlying all measures of community adjustment is the assumption that the person's actions must conform to the community's standards of appropriate behaviors. In short, a person is considered adjusted if s/he acts in socially acceptable, non deviant ways. Measures of criminal activity, alcoholism, and other anti-social behaviors have therefore been very popular in these studies of community adjustment.

- Satisfaction

Not only must a person perform and act in ways that conform to the values listed above, but s/he must be satisfied and happy in doing so and others involved with the person must be satisfied with the person's behaviors and actions. According to this value, a person can be considered well-adjusted if s/he is satisfied with his/her own adjustment and those involved with the person are satisfied with the adjustment as well. This value has not been as widely held as the other ones described but it has been used somewhat in the measures of residential, vocational, and social adjustment.

Whereas criterion variables are used to describe and/or measure the outcome of community adjustment, predictor variables are based on the assumption that measures on one or more dimensions make it possible to predict who will adjust. These predictors of community adjustment are described in the following section.

5.0 PREDICTORS OF COMMUNITY ADJUSTMENT

The types of predictor variables which have been used in the selected community adjustment studies fall into the following major categories:

1) Subject Variables - characteristics related to the subject--namely, demographic characteristics as well as data related to the subject's abilities and disabilities.
2) Pre-Admission Variables - characteristics related to the subject's experiences and background prior to institutionalization.
3) Institutional Experience Variables - characteristics related to the subject's experiences during his/her period(s) of institutionalization.
4) Community Variables - characteristics related to the subject's experiences in his/her community placement(s) after release from the institution.

In the following section, the major variable categories will be described and the findings related to these variables summarized. However, an in-depth analysis of these variables will not be conducted because such an analysis has already been reported in two other literature reviews in this field (McCarver & Craig, 1974; Windle, 1962). In this report, predictor variables will be related to the criterion measures described in the previous section. For an overall view of the types of predictor variables which have been used in each selected study, see Table IV, "Summary Matrix of Criterion Measures and Predictors of Community Adjustment Used in Predictive Studies."

5.1 Subject Variables

Subject variables, the most popular types of predictors, fall into two major sub-categories: 1) demographic characteristics of the subject, and 2) abilities and disabilities of the subject.

5.1.1 Demographic Characteristics

The major deomgraphic characteristics of subjects which have been used as predictors are age, sex, race, and diagnosis. No definitive relationships have been found in studies between any of these demographic variables and successful community adjustment.* For example, in the McCarver and Craig

*Please note that "successful community adjustment" has been defined in a variety of ways (see Tables III and IV). Therefore, the criterion measures used to relate predictors of community adjustment have not been consistent across studies.

review (1974), ten studies are cited which provide evidence that age is positively related to post-institutional adjustment, five studies are cited which suggest a negative relationship, and ten other studies are cited which reveal either no difference between age groups or complex interactions. Similarly, there has been a lack of consistent findings regarding the relationship of sex, race and type of diagnosis. The fact that findings on these variables have been inconsistent is not surprising, given the diverse samples, methodologies, and analysis techniques used across the various studies.

5.1.2 Abilities and Disabilities

Variables related to the subjects' abilities and disabilities include the following:

1) Intellectual level;
2) Academic ability;
3) Personality;
4) Personal appearance; and
5) Physical handicaps.

This set of variables (particularly intellectual level, academic ability, and personality) has been, by far, the most frequent predictor category used. The popularity of this set of variables reflects the traditional assumption in most community adjustment studies that placement success is a function of the individual's abilities as opposed to the environmental factors.

Perhaps the most frequently used and most controversial predictor has been intelligence level or IQ. As with the demographic characteristics, equally large numbers of studies have found either a positive relationship between higher levels of intelligence and adjustment (Jackson & Butler, 1963; Madison, 1964; and Skaarbrevik, 1971), or no meaningful relationship at all (Kraus, 1972; Shafter, 1957; Wolfson, 1956). And at least one researcher has found that more successful subjects had lower IQs! (Hartzler, 1953)

Statements concerning the effects of intelligence on adjustment have been confounded for many reasons, including the following:

1) Other important variables have not been controlled for when analyzing the relationship between intelligence and adjustment. For example, Windle (1962) notes that higher level institutionalized mentally retarded persons are more likely to be delinquent-prone and to have various personality problems. He hypothesizes that

were these variables held constant, intelligence would likely be positively related to adjustment.

2) Most studies have included only a narrow IQ range in their samples. Bell (1974) states that in early studies, the majority of subjects had IQs often in the 70s and 80s; and in the more recent major studies, the samples have typically been restricted to IQ above 50. Bell concludes that the lack of a consistent relationship between community success and IQ may be due to restricted sampling.

3) There may be a confounding relationship between IQ and adjustment success due to the fact that IQ is often one of the major release criteria used by institutional staff. That is, the prognostic relationship between IQ and adjustment may have been obscured by the use of this factor in initial placement selection.

Thus far, only the relationship of intelligence level and community adjustment has been discussed. Similar findings (or rather lack of findings) can be found with the other predictors falling within the category of subject's abilities and disabilities--that is, academic ability, personal appearance, physical handicaps. Since findings on these variables are well summarized in the McCarver and Craig (1974) and Windle (1962) reviews, this report will not present details on these variables. Suffice it to say that some studies have found positive relationships, some negative relationships and others no relationships whatsoever between these particular variables and community adjustment.

5.2 Pre-Admission Variables

A few studies examined the relationship between pre-admission variables and subsequent post-institutional adjustment. The major variables in this category are related to characteristics of the subject's pre-admission home environment. These characteristics focused mainly on the family background of the subject--e.g., educational, occupational, and economic level of the subject's family, family history of mental illness or mental retardation, criminal records or history of alcoholism in the family, age of subject at separation from family, etc. The major question addressed by these variables was the effect of an adverse or deprived pre-admission home environment on subsequent community adjustment. Some studies found that there was a negative relationship between persons who, for example, spent their early years in an orphanage or a foster home and subsequent community adjustment (Kraus, 1972). On the other hand, McCarver and Craig (1974) cite two

researchers who have speculated that an extremely adverse pre-admission environment might be a favorable sign (Mundy, 1957; Clarke, Clarke, and Reiman, 1958). Specifically, these studies found that the largest intelligence gains made by subjects placed in the community were made by those from extremely deprived backgrounds. Most studies, however, have found little or no relationship between variables related to the pre-admission home and various criteria of adjustment (Jackson & Butler, 1963; Krishef, 1959; Wolfson, 1956). McCarver and Craig hypothesize that the lack of significant relationships may be due to the fact that most studies were probably skewed on the pre-admission home environment variable--that is, most mentally retarded persons released from institutions originally came from rather deprived backgrounds.

5.3 Institutional Experience Variables

The institutional experience variables were the second most frequent set of predictors used in the selected studies. These variables fall into the following data categories:

1) Admission information;
2) Behavior record;
3) Training record;
4) Family contact/involvement; and
5) Release information.

Predictor variables related to the characteristics of the institution from which a person was released are notably absent.

5.3.1 Admission Information

The admission information consisted of demographic data such as the age of the subject at admission, the number of times the subject had been admitted to the institution and length of each period of institutionalization. There have been conflicting findings in the studies across these variables. For example, although most studies found no relationship between admission age and later adjustment (Madison, 1964; Shafter, 1957; and Skaarbrevik, 1971), some studies have noted a tendency for younger admissions to be more successful (Krischef, 1959). Others found a strong relationship between older admissions and community adjustment (Hartzler, 1953), and still others discovered curvilinear relationships in which a greater failure rate was observed in the middle admission age group than in either older or younger subjects (Windle, 1962).

Similarly, with the length of institutionalization, several studies have found that a long period of institutional residence is beneficial for later community adjustment, and others have taken the opposite view.

5.3.2 Behavior Record

The institutional behavior of the subject has been used frequently as a predictor of community adjustment. Information on the subject's general behavior, sexual behavior, and runaway attempts while at the institution were the major measures used. Most studies did not find any significant relationships between institutional behavior and community adjustment. Two main explanations have been offered for this finding:

1) The studies have been based on restricted samples. Most subjects released from institutions in these samples did not have major behavior problems, since institutions tended to use institutional behavior as a major release criterion. It is therefore difficult to determine the prognostic value of behavior records in predicting community adjustment.
2) Many researchers feel that the lack of any relationship between institutional behavior and community adjustment points to the inappropriateness of institutional codes of behavior in community settings. Rosen, Kivitz, Clark & Floor (1970) concluded that institutional conformity may not be the type of behavior needed to cope with the social demands of the community. Bower & Switzer (1962) also suggested that behavior in a protective institutional setting bears little relation to less sheltered community settings.

Since no relationship has been found between institutional behavior and community adjustment, many researchers have argued that institutional behavior should not be used by institutions as a release criterion (Eagle, 1967; Goldstein, 19674; Goroff, 1967).

5.3.3 Training Records

Institutional training as measured by work and school records of subjects while institutionalized has been used as a predictor in some studies. McCarver & Craig (1974) conclude that the experimental results regarding the influence of work experience on later adjustment have been rather borderline

in significance. Windle (1962) found that although some data do suggest that work experience is favorable for later adjustment, this relation needs both confirmation and further investigation.

5.3.4 Family Contact/Involvement

Some studies investigated the relationship of family contact or involvement with the subject while at the institution and the subject's post-institutional adjustment. This variable has been measured by the number of visits which the family made to the subject at the institution and the number of home visits the subject made to his/her family (Kraus, 1972; Krishef, 1959; Madison, 1964). McCarver and Craig conclude, based on the available evidence from studies, that family interest is not a particularly potent variable for predicting post-institutional adjustment

5.3.5 Release Process

Some studies have examined the relationship of the release process to community adjustment. For example, age at discharge was analyzed in four selected studies (Kraus, 1972; Krishef, 1959; Madison, 1964; Rosen et al., 1970), but not found to be a significant predictor of community adjustment. In the Krischef study (1959), a variety of factors were examined including source of the initiative for discharge planning, length of time between initiation of the discharge planning and the formal discharge, the planning for the type of home discharged to. None of these variables were found to be statistically significant. It can be concluded from these selected studies that variables related to the release process have not been useful predictors of community adjustment.

5.4 Community Variables

Predictor variables related to the community settings in which subjects are placed and their community experiences have been noticeably absent in these studies. In those few studies which have investigated this area, their approach has been quite limited, focusing mostly on variables such as the subject's length of stay in his/her community placement (Kraus, 1972; Madison, 1964) and in one case, the location (urban/rural) of the community setting (Krishef, 1959).

In the Kraus (1972) and Madison (1964) studies, length of stay in community placement was found to be significantly related to measures of community adjustment. In the Kraus study, there was a consistent and highly significant association between length of stay in the community and "social stability" as measured in the study, except in the area of delinquency. Similarly, Madison found length of stay in the community to be significant, indicating that if failure to adjust is to occur, it will usually occur quickly.

In the Krishef study (1959), the influence of rural-urban environment upon the adjustment of persons discharged from a state school for the mentally retarded was investigated and found to be statistically significant. Several explanations for the success of subjects discharged to rural as opposed to urban communities were offered in the study: 1) the rural community tends to be a less competitive environment and is more protective of the individual within its milieu; 2) formal education may tend to receive less emphasis in a rural community; 3) the rural community appears to offer not only more parental control, but more community interest and protection derived from the close associations found in a rural atmosphere. This finding demonstrates the importance which environmental variables may hold in determining the success of an individual's adjustment to the community. These types of variables have not been given enough attention in this field thus far.

It must be pointed out that two research projects have recently conducted exploratory analyses of the relationship of environmental variables to community adjustment (Sigelman and Bell, 1975; and Lambert, 1974). In the Sigelman and Bell study, three environmental factors were chosen for review from a host of potential variables:

1) Supervision style--the way in which parents, houseparents, and others overseee, direct, or manage the activities of the individual;
2) Contact with agencies and organizations by individuals and their families;
3) Community acceptance of the mentally retarded person as reflected in attitudes toward the retarded in the neighborhood, patterns of interaction with retarded persons, and friendship models of support.

After conveying the flavor of research in each of these areas, the authors considered future directions for research which might incorporate these three examples of environmental support into a broader empirical model of community adjustment.

The other study which has helped to open the door to environmental variables was conducted by Iamber (1974). In his paper entitled "Typologies of Adaptive Behaviors in Community Settings," he examined the relationship between individual capacity, environment, and adaptive behavior. Environment, in this study, encompassed family constellation, housing, type of setting, residential stability, social distance as well as a supplemental component labeled "helpers" which dealt with the role of benefactors who help the subjects to function in the community.

These two studies are highly significant because they are the first to address the issue of environmental factors related to community adjustment. Although their work was exploratory only, it represents an initial foundation upon which other future studies might build.

5.5 Summary of Predictors of Community Adjustment

The major conclusion which can be drawn from this review of predictors is that few, if any definitive relationships have been established between the various types of predictors and measures of community adjustment. As discussed in the case of predictors, such as IQ or age at admission, as many studies can be cited which found positive relationships between these variables and community adjustment as those indicating negative relationships, no relationships, curvilinear relationships, etc. Several explanations can be offered for this phenomenon.

First, the complicated nature of the release process and placement in the community does not lend itself to true scientific experimentation. It is not a cut and dried process which can be easily measured or for which comparison and control groups can be easily established. Studies have used various analytical approaches (including different criterion measures and predictors, samples, followup time periods, statistical techniques) to measure the relationships of independent variables to community adjustment. Given that the types of studies and methodologies have been so varied, it is not at all surprising that little consistency among these findings has been found.

Secondly, few studies have attempted to control for intervening variables which may affect the relationship between the predictor variables and the dependent measures. For example, most studies examining the relationship between IQ and community adjustments fail to take into account

that IQ is a major criteria used in determining which persons should be released from the institution in the first place. The use of IQ as a release criterion is, in a sense, an intervening variable. It is therefore, difficult to determine the prognostic value of this variable in predicting community adjustment.

Thirdly, the particular combinations of criterion measures and predictors used in the different studies are so varied that it is extremely difficult to summarize relationships between them. That is, a particular predictor common to several studies is not necessarily used to predict the same criterion measures of community adjustment. For example, the predictor termed "intelligence level" was used in many studies. In some studies, this predictor was analyzed in terms of its relationship to measures of social adjustment; in other studies, it was analyzed in terms of other adjustment areas or a combination of areas. To summarize across studies the relationship between this predictor and "adjustment" becomes difficult, if not impossible, because the combinations of measures and predictors vary so greatly.

Because the release and community placement process is so complex, the selection of appropriate predictors in studies becomes extremely important. Unfortunately, most studies have lacked any theoretical framework in selecting their predictors. Some studies have tended to include every variable "except the kitchen sink," using no theoretical framework in their selections. Other studies have failed to take into account systematically the variety of factors which might potentially affect predictors directly related to the subject as opposed to environmental or community variables. And in those studies which did include environmental variables, they tended to be very subject-oriented. For example, all of the institutional predictors and most of the community predictors reviewed dealt directly with the client's experiences in those settings--e.g., type of training client received at the institution, client's institutional behavior record, duration of client's stay in the community, etc. These sets of predictors focused almost exclusively on the clients' experiences in these settings rather than on characteristics of the institution and community themselves. More time and energy should be devoted in these studies to thoughtful selection of variables, so that findings based on the relationships can be interpreted according to a theoretical framework.

6.0 SUMMARY AND CONCLUSIONS

6.1 Integration of Findings of Studies

This section will attempt to integrate the overall findings culled from the various community adjustment studies. As discussed at many points in this report, it is difficult to summarize the findings because the studies are so diverse in purpose, methodology, samples, etc. However, certain general conclusions can be made.

The most important conclusion is that a large group of mentally retarded persons appear to be adjusting quite successfully to community living according to a wide variety of criteria. Frequently, the public's reaction to this overall finding has been as interesting as the finding itself. Many people have been shocked or at least surprised at the large number of mentally retarded persons faring well in the community. The element of surprise can be attributed to the fact that traditionally, there have been low and negative expectations regarding the adjustment potential of mentally retarded persons. Therefore, when mentally retarded persons succeed, people are surprised.

This pheonomenon is best reflected in the first significant study of the community adjustment of mentally retarded persons, an institutional followup conducted by Walter Fernald (1919) on those inmates who escaped or were reluctantly discharged during the 1890-1914 period from Waverly State School in Massachusetts. During this time period, the height of the eugenic alarmist movement, almost no persons were placed in the community with the sanction of the institution. The general attitude toward mentally retarded persons at the time of this study can be summarized in the following quotation from a paper presented by Fernald (1904) at the National Conference of Charities and Correction:

> No method of training or discipline can fit them to become safe or desirable members of society. They cannot be "placed out" without great moral risk to innocent people. These cases should be recognized at an early age before they have acquired facility in actual crime and permanently taken out of the community.... (p. 7)

He specifically described the dangers posed by mentally retarded women:

> Feeble-minded women are almost invariably immoral and if at large, usually become carriers of venereal disease or give birth to children who are as defective as themselves...." (p. 8)

The Fernald follow-up study was the first in a long series of studies, most of which established that mentally retarded persons were in general faring better in the community than had been previously expected. According to Davies (1959), it was "little short of a revelation" in the Fernald study that "there was found among the women subjects, no preponderant amount of delinquency, so few illegitimate children, and so few children in general, that many were good wives, and that many more were materially contributing to their maintenance." (p. 110) In fact, Fernald hesitated for two years to publish the findings of this study because of its shocking results. The implication of the findings were highly controversial--if mentally retarded persons were faring well in the community without the sanction or support of the institution, what levels of adjustment might they achieve with training and staff support?

The findings of other studies, similar in nature to Fernald's conclusions, became less shocking as society's attitudes toward the mentally retarded changed and the perception of the potential of mentally retarded persons to grow and develop changed. It is interesting to trace historically the types of follow-up studies which have been conducted and the nature of their findings.

McCarver and Craig (1974) in their review attempted to integrate the findings of 44 studies conducted from 1918-1970, based on one criterion of adjustment--remaining in the community (success) as opposed to returning to the institution (failure). Recognizing the limitations of such a cursory analysis, McCarver and Craig used it solely as a way to summarize the overall success rate of a diverse group of studies.

The median success rate (measured by the criterion of remaining in the community) found for the 44 studies was 74%. The mean success rate, based on all 9116 subjects in these 44 studies, was about 69%. McCarver and Craig then divided the studies into 4 time periods in which they were conducted and plotted the success rate of the studies in these time intervals: 72% success rate from 1918-1935, 89% from 1936-53, 65% from 1954-59, and 53% from 1960-70. McCarver and Craig offer many interesting interpretations of these data which will not be possible to report in detail in this paper. However, one interpretation will be noted here--that of the declining success rates since 1953. The increasing complexity of society and the

decreasing ability levels of those remaining in institutions were offered by McCarver and Craig as reasons for the decreasing success rates in this time period.

A finding related to the general conclusion in most studies that a large majority of mentally retarded persons are adjusting well has been that the stability of their adjustment tends to increase over time. The longitudinal followup studies offer a unique opportunity to trace the adjustment patterns of individuals over time. All of the selected longitudinal studies confirm this trend of increased stability over time. For example, this conclusion was drawn in the Baller, Charles & Miller study (1967), in which three groups of subjects (one "low" mentally retarded group, one "middle" mentally dull or borderline group, and one "high" normal group for comparison) were followed up in their mid-lives after having originally been studied in their early lives in the 1930s. The authors noted that "over time, the range of capability for all groups tended to increase" and "...with maturity, the subjects were able to profit from improved economic conditions, and have become more self-sufficient." (p. 446) Similarly, Fairbank (1933) noted that her subjects demonstrated a "remarkable degree of stability," followed up after an interval of 17 years. Also, as reported in Section 5.0, several predictive studies found the variable length of time placed in the community to be significantly and positively related to community adjustment.

The comparative followup studies provide a unique perspective on the adjustment process, because in many of these studies, the adjustment experiences of mentally retarded subjects have been compared to groups of non-retarded persons. Only in these studies can we determine how the adjustment experiences of mentally retarded persons compare to the so-called "normal" population's experience.

In Kennedy's study (1962), information on the personal, social, and economic adjustment of a group of mentally retarded subjects and a group of normal controls were collected. She noted that the overwhelming majority of both subjects and controls had made acceptable and remarkably similar adjustments in all areas. There were, however, some differences between the subject and control groups (with the subjects' adjustment scores lower than the controls' on some variables), but these differences were considered to be of degree, rather than of kind. For example, Kennedy found that the subjects were slightly less active in their degree

of participation in social activities than the controls, but the kinds of organization to which subjects belonged did not differ markedly from those in which controls were members.

Similarly, Baller, Charles and Miller (1967) found that the members of their low group fared much better than they had expected, but in comparison with the other two groups originally identified as dull and as normal, they continued to be in an inferior position in most respects, with the ratings of the three groups taking generally a stair-step form.

It is important to stress, however, that all is not "rosy" in the pictures that have been portrayed of the adjustment experiences of mentally retarded persons. A majority of subjects seemed to be adjusting well in the selected studies. But a significant number have not adjusted successfully. And of those who have adjusted well according to the wide variety of criteria used in different studies, various levels of adjustment can be noted within the sample groups, some experiencing less success than others.

It is often in the area of social adjustment where mentally retarded persons have experienced the greatest problems. For example, in Saenger's followup study (1957) of 520 mentally retarded adults who were former pupils in New York City classes for the "trainable retarded," he found that only 1/2 of the group were said to have friends, 1/4 had friends of the opposite sex, and 1/3 were able to leave their immediate neighborhood or take buses and subways by themselves.

Similarly, Lambert (1974b) summarized the findings of his follow up of 373 persons living in Ontario:

> About one-half of these adults had never worked....Most of them do very little around the house, and scarcely participate in activities in the home or outside of it....Some of the barriers which they identified to a more full participation in life were the absence of other persons to help them around in the community and the scarcity of other people with whom they might interact...." (p. 15)

Edgerton also points to the social isolation which many mentally retarded persons experience in living in the community--particularly to the stigma of having been defined as mentally inferior and the intense need to pass as "normal." Obviously, the community adjustment of mentally retarded persons has not been a complete success story. As E.A. Doll, developer of the Vineland Social Maturity Scale and one of the forefathers in the field of mental retardation summarized in 1932:

> What becomes of the non-institutionalized feeble-minded? Many of them continue to receive financial support and social supervision of their families so successfully that they do not become social problems outside of their homes. On the other hand, neither do they become social successes. They live in a sort of purgatory between success and failure, rising and falling with the tide of circumstances....apparently, they find some humble niche in society which they can fill without becoming such a social menace that society becomes gravely concerned about them. (As quoted in Kennedy, 1962, p. 70)

Similarly, Edgerton (1967) concluded in his study: "These former patients have not become pillars of society, but neither have they been conspicuous in their opposition to social norms or to law." (p. 142)

The findings of the studies reviewed in this report point to this "purgatory between success and failure." Many mentally retarded persons manage to exist and "make it" in the community but the quality of their lives has been deficient in many aspects. In conclusion, it can be said that overall, mentally retarded persons have made reasonably good adjustments to many environments in which they function. However, adjustment problems continue to exist. More research should be undertaken which will attempt to distinguish between the adjustment experiences of the successful and unsuccessful groups. Only by analyzing the unsuccessful experiences can we gain insight into the total adjustment process and the supports necessary to assist mentally retarded persons in adjusting well to community living.

6.2 Future Outlook on Community Adjustment of Mentally Retarded Persons

What is the future outlook for mentally retarded persons living in the community? According to many experts the future is not encouraging. Economic and social trends point to an increasingly complex and mechanical society which poses special problems for the mentally retarded.

For example, according to Goldstein (1964), the occupational picture for the retarded is far from encouraging:

> Occupational categories once the province of the retarded have been decreasing markedly in the past half-century.... much of the disappearacne of jobs for the retarded may be attributed to technological changes wrought be automation and mechanization in industry, on the farm, and in homes. Competition for remaining jobs has become more keen because of the large labor pool available for such work. (p. 254)

Society is becoming increasingly complex socially, as well. For example, Skaarbrevik (1971) points to the urbanization of society which he feels has made "...social life more intricate, hampering social interaction of retarded individuals with other people...." (p. 563) Similarly, Krishef (1959) found the urban social environment to be a major delimiting factor in the community adjustment of mentally retarded persons. In his study, subjects living in rural areas adjusted more successfully than subjects living in urban environments. He interpreted this finding in the following manner:

> In the urban community, the retarded person meets people more frequently, has more demands made upon him in social interaction, and is perhaps more likely to encounter criticism and ridicule. The emotional and social pressures upon the ward and the resultant frustration may ultimately lead to more frequency of unsuccessful adjustment among the mentally retarded. (p. 864)

It becomes apparent that the increasing complexity of society has had an effect on the occupational opportunities and social life of mentally retarded persons. In future studies, more attention should be paid to the relationship of these conditions to the community adjustment of mentally retarded persons. Skaarbrevik stressed the need for a more dynamic view both of the problems of adjustment for the mentally retarded persons and the research in this field--a view which stresses the interaction between the individual and his community:

> Sociological, political, and economic variables, in addition to psychological variables, could give an interesting and useful picture of the problems of the retarded from a social point of view. These variables could describe the communities where the retarded are living along a simplicity-complexity dimension, and also could provide new suggestions about how these problems can be solved in the most efficient way...." (p. 563)

6.3 Guidelines for Developing a Model of Community Adjustment

There are many conclusions about the nature of community adjustment which can be drawn based on the review and analysis of follow-up studies included in this report. In developing a model of community adjustment in future studies, the guidelines described below should be taken into consideration.

- Community Adjustment is multi-dimensional.

There are various components or dimensions of community adjustment. Too often, researchers have used a single homogeneous criterion to measure

community adjustment. This approach is inadequate, as discussed earlier in this report regarding the use of institutionalization as the sole criterion of adjustment. People function in a variety of environments which place multiple demands upon them. There is a need to explore different success criteria for persons in different settings. Not only must the requirements of the various environments be incorporated into the criteria of community adjustment (e.g., work, school, home, neighborhood, etc.) but those behaviors or attributes which transcend the specific environments (e.g., independence, competence, satisfaction, etc. should be included.

The adjustment of mentally retarded persons has frequently been conceptualized according to models which were too simple to capture the complexity of the adjustment process. For example, Windle (1962) stated in the introduction to his report, "...because subnormals seem to be less complicated psychodynamically than persons of normal intellect, it is hoped that fewer factors might be involved in their adjustment..." (p. 133) It is the conclusion of this report that the adjustment of mentally retarded persons is no less complex than the adjustment of any other group of persons. The various dimensions of adjustment so important in the lives of non-retarded persons are as crucial in the experiences of mentally retarded persons living in the community.

- There are many levels of community adjustment.

Many studies have used dichotomous criteria of community adjustment in which subjects are rated as either adjusted or not adjusted, successes or failures. This type of approach assumes that adjustment is an "all or nothing" event. It fails to take into account the various levels of adjustment which can be attained by a given individual. For example, from minimal community adjustment to maximum community adjustment, the following levels might be built into the conceptual model:

Level I: Remaining out of the institution -- the mere fact that the client has not returned to the institution is evidence that to some degree, he has adjusted to the community

Level II: Fading into society -- staying out of trouble with the law; not acting in socially deviant ways

Level III: Making it -- holding a job, being able to care for one's own needs, being able to care for own immediate surroundings, being self-sufficient

Level IV: Feeling involved -- having friends, belonging to clubs or groups, feeling part of one's community, using community facilities such as movies, parks, shopping centers; pursuing hobbies and leisure activities

The particular skills or behaviors which comprise each of these levels are merely suggestive; what is important at this point is to recognize that adjustment is, in fact, a continuous variable.

- Community adjustment is relative to environment.

In order to measure adequately a person's adjustment to community living, one must look at the interactions between that person and the environment in which s/he functions. As Cobb (1969) stated:

> Success or failure in adjustment is not simply inherent in the nature of the individual, but is a result of interactions among at least three sets of variables, the properties of the person, the environmental interventions, and the societal accommodations. That is, whether or not an individual succeeds or fails in some particular respect depends on his individual characteristics, as modified by whatever treatment or training he has had functioning in social contexts which accept, reject or accommodate him. (p. 1)

What constitutes adjustment for a person in one environment might not be considered successful in a different environment. Adjustment is relative to the individual person and the specific demands and expectations of his/her environment(s). Most of the studies to date have suffered from an almost exclusive emphasis on variables associated with the individual, rather than with the nature of the environment and its demands.

- Community adjustment is a process.

Adjustment is not a static event; it cannot be measured absolutely at only one point in time. Rather, adjustment is a process in which an individual adapts over time to his/her environment. This was indicated most clearly in the longitudinal studies which demonstrated that adjustment tends to increase over time. To measure this evolving process, data must be collected at several points in time. Unfortunately, most of the research in this area has been post hoc and collected at a single time period.

- The community adjustment process is two-way.

Given that community adjustment represents an interactive process which is relative to environment as discussed above, follow-up studies measuring community adjustment must focus not only or how the indivdual adapts to the demands of his/her community, but how the community adapts to the demands and needs of the individual. The process of adjustment has traditionally and almost exclusively been viewed as a one-way street--if the individual meets the community's demands, s/he is considered "adjusted." We never label the community "adjusted" when it meets the demands of its individuals. The traditional bias of placing all of the burden for adjustment on the individual and no responsibility on the environment must be reversed. In future studies measuring community adjustment, variables relating to both the individual's and community's adaptations must be assessed.

6.4 Implications of Findings for the Design of the Abt Study

In selecting criterion measures and predictors of community adjustment for the Abt study, a great deal was "borrowed" from the designs of previous studies. Wherever possible, we built upon the measures of adjustment which were found fruitful in other research. Table V presents the specific criteria and predictors of community adjustment used in the Abt study according to the same framework which was used to analyze the measures of previous studies. As can be seen, many of the measures in the Abt study are similar to and/or built upon the variables used in past research.

However, major differences exist between the Abt study variables and those presented in Tables III and IV from other studies. These differences reflect the new directions which we felt were necessary to pursue, based upon the findings of this literature review and the guidelines for developing a model of community adjustment described in 6.3. In the area of criterion measures, the primary difference between the Abt study and previous research is the emphasis in the Abt design on variables labelled in the matrix as "other." One of the major findings in the literature review is that the concept of adjustment does not fit neatly into the categories traditionally assumed--e.g., vocational adjustment, social adjustment, etc. Perhaps this is why so many of the Abt variables are presented in the "other" column--they don't fit into the traditional categories. For example, measures in the Abt design such as overall perceptions of adjustment,

problems encountered in community living, and service needs transcend or run across the other measurement categories. These types of measures, although rarely used in previous research, were considered necessary in this study in order to develop a broad model of community adjustment as outlined in the previous section.

In the area of predictors, the primary difference between the design of the previous studies and the Abt study is the emphasis in the latter on institutional and community variables. Some of the major findings in this literature review were that predictive studies focused almost exclusively on subject variables and that in those studies where environmental variables were used, they tended to be very subject-oriented, as opposed to setting-oriented. In an effort to broaden the analytical frmaework of research in this area, a large number of institutional and community predictors were included in the Abt study in addition to the traditional subject variables. Characteristics of the institutions and communities were incorporated as well as characteristics of the clients' experiences in these settings. It is hoped that the inclusion of such variables as characteristics of residential settings, service providers, and training sources will enable the Abt study to analyze the interactions between the person and the community environment(s) in which s/he functions.

Table V

CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT USED IN THE ABT STUDY

Criterion Measures

Vocational	Social	Marital	Economic	Residential	Other
Type work (sheltered/competitive) Hours worked Previous work activities Reasons for leaving previous placements Client satisfaction with current job Projection by family of client's day placement one year from interview	Leisure Activities: Type Frequency Friendships: Previous friendships Current friendships Boy/girl friends Ability to manage social relationships Types/frequencies of activities which client is allowed to do in residence Civic activities: Driver's license Driver's education Registered voter	Marital status Number and ages of children	Financial support of client received from various sources Expenses for rent, board, utilities Wages	Residential history: Number and types of settings Length of stay in settings Reasons for leaving each setting Residential satisfaction: What client likes/dislikes Settings client would prefer to live in Projection by family of client's residential setting one year from interview	Involvement in school activities/day activity center: Type class/day activity center Length of stay in placement Hours/work in placement Client satisfaction with placement Number of previous classes/activity centers attended Reasons for leaving placements Projection by family of client's day placement one year from interview Training/services received by clients: Types Need for Frequency of use Dependence upon social agencies: Use of follow-up Use of case manager Relationship of "helpers in the community to client Problems encountered in community by client and family: Type/degree of problems Changes in problems over time Types/degree of worries of client Overall adjustment as perceived by clients: Family relationships Work/school relationships Community relationships Overall adjustment as perceived by families: Family relationships Work/school relationships Community relationships Overall adjustment as perceived by interviewers: Social isolation Social adjustment Satisfaction/happiness Institutionalization: Number of returns to institution Reasons for returns

Table V

CRITERION MEASURES AND PREDICTORS OF COMMUNITY ADJUSTMENT USED IN THE ABT STUDY
(Continued)

Predictors

Subject Variables		Pre-Admission Variables	Institutional Experience Variables	Community Variables
Demographic	Abilities & Disabilities			
Age Sex Race	Disabilities Deformities Mobility Weight Appearance Functional Level: AAMDS Scale Level of Retardation	Number of years living with family	Institutional characteristics: Size Level of retardation of institutional clients Staffing ratio Types pre-release programs offered Per capita expenditures Creditation status Number of clients released Institutional experience of clients: Number of admissions/discharges Length of institutionalization Types of training received at institution Types of school activities at institution	Availability of services in community Types service/training Residential settings Available in the community Providers of services in community Types of providers - institution/residence/day placement/community agency Friendliness: of community of neighbors Residential setting characteristics: Physical characteristics Proximity to shopping, transportation Number of persons living in setting Staff ratio in residence Staff/family educational background

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